Medical Library JAN 2 4 1946

BRITISH MEDICAL JOURNAL

JOURNAL OF THE BRITISH MEDICAL ASSOCIATION

SATURDAY DECEMBER 29 1945

TABLE OF CONTENTS

Medicine and the State, with Special Reference to the E.M.S.
The Right Hon. WALTER ELLIOT, F.R.C.P., F.R.S. 911

Congenital Obliteration of Bile Ducts and Icterus Gravis Neonatorum
M. O. SKELTON, M.B., and GEOFFREY H. TOVEY, M.D. 914

The Rh Factor and Blood Transfusion W. C. MOLONEY, M.D. 916

Asymptomatic Kala-azar in Soldiers from Over-seas T. G. ARMSTRONG, M.D. 918

Four Cases of Russell's Viper Bite P. H. WYON, M.B. 919

Blindness following Haematemesis JAMES BLACK, M.D. 920

MEDICAL MEMORANDA

Anaesthesia and Blood Transfusion for Cases of Traumatic Aneurysm. I. SCHALIT, M.B. 921
Local Penicillin in Purulent Pericarditis. M. M. GOWLAND, M.D. 922
Large Granulosa-cell Tumour of the Ovary. H. A. KELSEY, M.B. 922

GENERAL ARTICLES AND NEWS

King Edward's Hospital Fund 932
Nova et Vetera:
Jewish Contribution to Medicine 930
First Treatise on Rickets 931
A Support for Anaesthetic Tubing. O. R. TISDALL, D.M. 924
THE HEALTH OF BIRMINGHAM 932
MEDICAL RESEARCH IN S. AFRICA 932
STAFFING OF MAUDSLEY HOSPITAL 933
THE SERVICES 946
UNIVERSITIES AND COLLEGES 946
MEDICAL NOTES IN PARLIAMENT 945
MEDICAL NEWS 948

REVIEWS

Medical Uses of Soap 923
Beveridge Report and White Paper 923
Applied Physiology 923
Notes on Books 924

OBITUARY

Sir E. Farquhar Buzzard, BT., D.M., F.R.C.P. 943
A. B. Danby, F.R.C.S.Ed., F.R.C.O.G. 944
E. H. L. Wigram, M.B. 944
H. H. McClelland, M.B. 944
Frances M. Harper, M.B., Ch.B. 944
D. Johnston Jones, M.D. 944
E. G. Bark, M.B., B.S. 945

LEADING ARTICLES

Electromyography 925
Mass Observation and the Birth Rate 926

ANNOTATIONS

Role of Allergy in Delayed Wound-healing 927
Pasteurization of Milk in Adelaide 928
Cold Agglutinins 929
Supply of Midwives 929
Half-yearly Indexes 929

LETTERS AND ANSWERS

Benzyl Benzoate for Scabies — Renal Tuberculosis — Intramuscular Injection of Liver—Posture in Heart Disease—Inheritance of Werdnig-Hoffman Disease—Cure of Syphilis—Income Tax—A Case for Diagnosis — Treatment of Warts—Morphine Prophylaxis of Paralytic Ileus—Longevity—Corn in Egypt—Fat Atrophy and Insulin Injections—Sale of U.S. Government Publications—Corrigendum 948-50

REPORTS OF SOCIETIES

ROYAL SOCIETY OF MEDICINE: D.D.T. 933
MEDICAL SOCIETY OF LONDON: Hormone Therapy of Cancer 934

MEDICO-LEGAL

The Case of a "Cocktail Tonic" 931

CORRESPONDENCE

Hospital Service Plan. Sir HUGH LETT, F.R.C.S., and W. RUSSELL BRAIN, D.M. 936
Proposed National Health Service. Sir E. GRAHAM-LITTLE, M.D.; A. G. WINTER, M.B. 936
"A Fundamental Principle." JOHN A. RYLE, M.D. 936
Surgical Catgut. G. W. BERESFORD, F.R.C.S.; Sir WELDON DALRYMPLE-CHAMPNEYS, D.M.; HAROLD DODD, F.R.C.S. 937
Surgery in West Africa. CUTHBERT ROBERTS, F.R.C.S. 937
Treatment of Varicose Ulcers. C. GLYNNE OWEN, M.R.C.S.; W. E. WALLER, M.D.; R. CROSBIE WALSH, M.R.C.S. 937
Morphine as Prophylactic for Ileus. J. J. ROBB, F.R.C.S. 938
Shock and Open Ether. ARTHUR MILLS, M.D. 938
Spinal Analgesia in Obstetrics. DOREEN CRANCH, M.B.; B. J. CLYMO, M.B. 939
Sulphonamide Therapy by the Midwife. D. SAKLATVALA, M.R.C.S. 939
The Flour in the Bread. A. PINEY, M.D. 940
The Westergren E.S.R. Technique. K. B. ROGERS, M.B. 940
The E.S.R. H. S. GASKELL, M.B. 940
Stethoscope *v.* *X* Rays. R. GRENVILLE-MATHERS, M.B. 941
Radiology and Pyloric Stenosis. BERNARD LEGGETT, M.R.C.S. 941
The Lower Border of the Liver. R. P. GILLESPIE, M.B. 941
Research into Tuberculosis. S. G. TIPPETT, M.B. 942
Temperature and Descent of the Testis. A. W. BADENOCH, F.R.C.S. 942
The "Stamping" of the Guards. W. H. VALENTINE, M.D. 942

Epidemiology Section 947

SUPPLEMENT

Heard at Headquarters *137*
MIDDLESEX PLAN FOR TUBERCULOSIS *139*
CORRESPONDENCE *138*
NEW MOTOR CARS *140*
H.M. FORCES APPOINTMENTS *139*
BRANCH AND DIVISION MEETINGS *140*

BRITISH MEDICAL ASSOCIATION, TAVISTOCK SQUARE, LONDON, W.C.1

No. 4434, WEEKLY, PRICE 1/6

Copyright
REGISTERED AS A NEWSPAPER

THE THERAPY OF ASTHMA

The treatment of asthma resolves itself into a consideration of underlying factors and causes. Often in ASTHMA *the underlying cause* is not discoverable or changes from time to time—now irritant dusts, now bacterial infection, etc. *The underlying factor* is fortunately always the same—bronchospasm.

Thus sometimes causative agents can be removed or mitigated but always the underlying factor—bronchospasm—can be treated, successfully, with FELSOL.

Most cases of Asthma are chronic and demand patience in treatment—persistence with FELSOL will yield the highest possible percentage of successes.

NO MORPHIA . . . . NO NARCOTICS

Phenazone 0.47 *Iodopyrine* 0.03
Antipyrine Aceto-salicylas 0.40
Caffeine 0.10
Ext. Viscum Album 0.01
Ext. Brachycladii 0.01
Physicians' samples and literature willingly sent on request.

Felsol REGD POWDERS for ASTHMA

British Felsol Company Ltd., 206/212 St. John St., London, E.C.1
Telephone: Clerkenwell 5862 *Telegrams: Felsol, Smith, London*

For Sulphonamide Therapy in Para-Nasal Infections

ALBUCID SOLUBLE

Naso-Pharyngeal Solution

THE remarkably low surface tension of this solution ensures even dispersal over, and rapid penetration of, inflamed mucosa. Moreover, Albucid Soluble is the only sulphonamide that can be presented in a neutral solution (pH 7·4). It is readily absorbed and of high chemotherapeutic activity. Albucid Soluble Naso-Pharyngeal Solution may be used as a spray or painted over the affected area.

IN BOTTLES OF ONE FLUID OUNCE x 10%

'Albucid' is the registered name which distinguishes sulphacetamide of British Schering manufacture.

BRITISH SCHERING LIMITED
185-190 High Holborn, London, W.C.1

Descriptive literature gladly sent on request.

BS

6.72

SURGICAL SERVICE SALTAIR

THE OLD

Good Wishes

WITH *NEW* HOPES OF FULFILMENT . . .

Now that Peace has returned there is real hope of the fulfilment of those Good Wishes which it is once again our pleasure and privilege to extend to the Medical Profession. Difficulties and discouragements, of one kind and another, still beset us, but 1946 should surely bring an easing of our burdens.

THE HOUSE OF SALT looks forward to better times, when it can again co-operate to the full with doctors everywhere by supplying not only the *complete* pre-war range of Saltair individually made Appliances, but also in developing new productions.

SALT & SON LTD · BIRMINGHAM 2

The new 16 mm Coloured Film (Silent) has been distributed to all B.O.C. Medical Branches throughout the British Isles, and is now available on application.

THE
BRITISH OXYGEN
COMPANY LIMITED

MEDICAL SECTION · WEMBLEY · MIDDLESEX

Incorporating

COXETER & SON LTD. and A. CHARLES KING LTD.

★ Service is available to the Medical Profession through the British Oxygen Company's Associated Companies, namely: THE COMMONWEALTH INDUSTRIAL GASES LTD. AUSTRALIA. AFRICAN OXYGEN & ACETYLENE (PTY.) LTD., SOUTH AFRICA. INDIAN OXYGEN & ACETYLENE CO. LTD., INDIA.

BRITISH MEDICAL JOURNAL

LONDON SATURDAY DECEMBER 29 1945

MEDICINE AND THE STATE

WITH SPECIAL REFERENCE TO THE EMERGENCY MEDICAL SERVICE*

BY

The Right Hon. WALTER ELLIOT, *M.C.*, D.Sc., F.R.C.P., F.R.S.

The State—the organized community—finds itself always interfering more and more with the individual in two things, education and medicine—the development of the mind and the care of the body. The doctor and the teacher are two figures over whose appointment, qualifications, and conduct the community continually demands a certain control. As the community increases in power the balance of this control requires the most careful scrutiny. In its control over the teacher the community—which is to say the official—has now gone to very great lengths. Its control is not yet complete. It is not yet, for instance, a punishable offence to send a child to any place of instruction distant more than a certain number of yards from its doors, or to give it a course of instruction other than that prescribed by the State. But the trend of administration is certainly in that direction. We have seen Glasgow Town Council attempt to prohibit any children being sent to Glasgow High School except those who happen to live around its doors, even though the parents might be willing to compensate authority for this slight disturbance of routine. That is, of course, the direct contrary of the principle of individual choice which has so far had at least lip-service paid to it in the case of medicine. It seems unlikely that this principle will be allowed to survive in one sphere if it is destroyed in another, and it is well worth the while of the profession of medicine to look from time to time over the wall to see what is being done to its sister art, the profession of teaching.

I think most of us here believe that the all-powerful authority of the State, convenient though it might be to wield for us as individuals, is too crushing and deforming a power to be used to govern those delicate reactions of mind and body on which the practice and the progress of the medical art depend. Medicine is, and must always remain, a more experimental, a more dubious art than that of teaching. The status of the pupil (an ancient, an honourable, and a well-understood status) is almost literally child's play compared with the status of the patient. The status of the pupil derives generally from the relations of adults with the immature. The status of the patient must regulate the relations of an adult with an adult. To entrust an adult with authority over another adult, authority of such a sweeping nature as that of a doctor, is always a very risky thing to do. That authority may, for instance, at quite an early stage (say in delirium), involve actual physical restraint. In the case of lunacy—and that is, after all, only a matter of the signature of two men or even of one man—it may turn into imprisonment for life. For the community to organize and systematize this power into a single solid, compulsorily united front would seem a great peril to the individual. Doctors do not desire this power. It is proffered to them and at times stridently thrust before them by the State. From time to time, however, such organization and such combination are inevitable, as in time of war. The motto of those working in such an emergency, considering the consolidation of such power, should always be less rather than more, and temporary rather than permanent.

Formation of the E.M.S.

It is interesting to look at one recent experience and see how the State, required by force of circumstances to carry out a great unification of the medical services of this country, proceeded. I refer to the Emergency Medical Service, particularly in its hospital aspects, during the war.

I should like first of all to direct your attention to its title. The title focused and riveted attention, and was intended to do so, upon the very fact that these measures were emergency measures to deal with an emergency situation. The next thing to note is that the scheme was brought into being along empirical lines, not proceeding on any preconceived abstract theory, but dealing with the situations as they occurred. So far as I know, each of us responsible for its inception tried first in our approach to envisage the problem and then to find an appropriate solution. This differed from what seems to be the motto at present—namely, to produce a solution and then to go about to find a problem which it will fit.

The Emergency Medical Service arose out of the approaching danger of war, and more particularly out of the danger of war in the air with its necessary consequence of large numbers of casualties within our own shores. It was considered likely by the Service authorities that very large numbers of casualties might arise, and would certainly have to be prepared for, in the earliest days, or even hours, of such a war.

The first solution tried was through the local authorities. The first Government Act was the Air Raid Precautions Act of 1937. This placed upon the local authorities the responsibility for framing air-raid precautions schemes, including casualty services. In 1938 it became clear that adequate hospital provision simply could not be made on such a basis. For one thing, local government boundaries were often completely inappropriate. It was therefore laid down by the Government that the Minister of Health in England, and the Secretary of State for Scotland, should be responsible for providing an Emergency Hospital Service. Early in 1939 the administration of the related first-aid, and ambulance, services was transferred from the Home Office to the Ministry of Health. I was at the time Minister of Health and therefore saw more of the English end; and as the weight of attack fell chiefly on the southern half of our island, and more particularly upon the Home Counties and the London area, I shall use several illustrations drawn from the South.

Our scheme was, fundamentally, to expand the existing hospital system to the utmost, and in particular to secure the co-operation of local authorities and voluntary organizations to the greatest possible extent, looking only to the most efficient solution of the problem, and not to preconceived ideas as to how this should be brought about.

The first step obviously was a survey of the existing accommodation, with careful attention to possibilities of expansion. (I say "obviously"; but it had not in fact previously been done.) All the ordinary hospitals, and in addition mental hospitals, public assistance institutions, sanatoria, etc., were surveyed. In all about half a million "hospital" beds were brought under review.

The next step was to obtain the co-operation—and I stress the word *co-operation*—of local authorities and voluntary organizations, both in placing accommodation at the disposal of the Government and in expanding accommodation where it was desired. The supply of medical personnel was tackled with the

* Address to the Edinburgh Royal Medical Society, Nov. 23, 1945.

co-operation of the British Medical Association, and steps were taken to establish an auxiliary nursing service. Emergency pathological and blood transfusion services were also arranged for with the assistance of the Medical Research Council. All this was done in advance of statutory authority, and it was fortunate that this was so. The position was later regularized by the Civil Defence Act; but this was not passed till July, 1939, while the war, as you will remember, came in September. Lacking the steam-roller of the statute, we really did have to proceed by agreement. This meant good will. The Emergency Hospital Service was provided for by Part VII of the Civil Defence Act. The transfer of first-aid posts and similar services was left to arrangement between Ministers under Section 1 (3). In view of the shortness of time available it will be seen that it was wise not to embark upon previous discussions as to abstract principles. Up till that time—till the passing of Section 50, to be exact—the Minister had no power in actual fact to do all the things he was doing—to acquire land, buildings, and equipment, and, a more ticklish business, to enter into agreements with local authorities and voluntary hospitals. But about 70 to 80% of the hospitals, municipal and voluntary, came within the scheme.

A Difficult Problem

What was the actual problem? It was very briefly this: that the Air Ministry informed us that the liability was an air assault on a scale of 25,000 casualties per 24 hours—going on, night after night, for ten days and nights on end, or possibly more. They considered that provision would have to be made for some 300,000 bed cases in Great Britain—apart from the killed and hopelessly injured. This enormous casualty list had to be regarded as an immediate liability from the very earliest hours of the war. It was clear that this altogether transcended any ordinary scale of battle casualties which we had ever known or prepared for; it was, for instance, two or three times as great as the whole fighting strength of the British Expeditionary Force.

The first decision taken, therefore, was to mobilize on the civil side and not on the military; and this, as will appear, involved mobilizing on the voluntary organizations rather than on the State. We had to postpone, for instance, the call-up of medical and nursing personnel from civil to military hospitals, which had been till then a cardinal feature of war mobilization. To meet this liability the achievement was considerable. In the first week of Sept., 1939, 190,000 beds were available to receive casualties. This was found a useful working figure, though rather excessive. At March 31, 1944, there were in E.M.S. hospitals in England and Wales about 40,000 beds vacant, ready to receive; 51,000 beds could have been cleared and 24,000 more staffed quickly if necessary. This gives a total of 115,000 beds to which longer-term reserves could have been added.

The scheme provided for 100,000 beds to be obtained from the 500,000 previously reviewed, for 100,000 to be obtained by setting up additional beds in existing institutions, and for 40,000 beds to be provided in new hutted hospitals, mostly as annexes of existing institutions. To make these beds usable for classes of cases not previously treated—e.g., surgical cases—a process of up-grading was set on foot: provision of operating theatres, *x*-ray rooms, improved sanitation, and so on. This up-grading was paid for in the case of the local authorities largely by the Exchequer, and in the case of the voluntary hospitals wholly by the Exchequer. Such expenditure had of course to be approved by the Department. Protection against bombs was also carried out. All this involved Exchequer payments of something between two and three million pounds—I think you will agree, a very moderate sum.

The hutted hospitals, although mainly in the grounds of existing institutions, cost some four million pounds for the first 37,000 beds. About another 20,000 were later provided —10,000 civil and 10,000 military. All this was considered by the Select Committee on National Expenditure reporting in 1941. They said that after visiting a number of these hutted hospitals they were impressed by the standards of construction and equipment which have been secured at so low a cost, and that "the Ministry and the Department of Health for Scotland are to be congratulated on an achievement which might well be studied by local authorities." They found that the average cost per bed of hutted hospitals built as independent units was £250, of those built as annexes £100. The cost per bed of a hospital built on peacetime standards was of the order of £1,000.

The Emergency Medical Service was staffed in the year ending March 31, 1941, by 1,737 doctors employed whole-time and 564 paid on a part-time basis. In addition 4,584 doctors were enrolled on a sessional basis. In that year—March, 1940, to March, 1941—the total expenditure of the Ministry of Health on the Emergency Medical Service, the Emergency Hospital Scheme, and allied measures to deal with casualties and disease was estimated at £15,703,000. This excludes first-aid posts and A.R.P. street ambulances. Again I think it may be said that this extensive organization was not only on the whole smoothly put through but was remarkably inexpensive. How, then, was its administration carried on?

Administration of the E.M.S.

Certain points are worth noting. I have mentioned the staffing of the scheme. The proposals for an Emergency Medical Service were worked out in the spring and summer of 1939, after long discussions with the Central Emergency Committee of the British Medical Association (which became during the war the Central Medical War Committee). The salaries of whole-time officers corresponded roughly to the rates for officers in the R.A.M.C. The basic grade of a "Medical Officer" corresponded to that of "Captain"; the grade of a Specialist to that of "Major," with corresponding rates on higher levels. The junior grade of "House Officer" carried a salary below that of a Lieutenant, R.A.M.C. It was not considered justifiable to pay at so high a rate for junior officers of this class.

The Group Officers (the Deans or members of the consulting staffs of the teaching hospitals) were organizing lists of practitioners when war broke out. Practically all the practitioners on the Group Officers' lists reported for duty whether they had received a formal letter or not. In the circumstances of the possible 300,000 casualties previously mentioned their services were all accepted. But this led to the enrolment of 2,156 practitioners. All these were subject to the rules attaching to temporary officers of a Government Department. It will be recalled what trouble had then to be taken almost immediately to get out of this whole-time State Medical Service when the emergency did not materialize, and to transform it into something permitting of private practice.

The nursing personnel was also expanded under a Central Emergency Committee for the Nursing Profession. A register was compiled of those who would be willing to serve in an emergency. In August, before the war, the register covered 10,000 trained nurses, 4,000 assistant nurses, and 55,000 auxiliaries (14,000 trained). By 1940 the numbers were 15,000 trained nurses, 6,500 assistant nurses, and 100,000 auxiliaries (26,000 trained). This figure includes 12,000 members of the St. John Ambulance Brigade and the British Red Cross Society who had already received training from those bodies. The cost of enrolling, registering, training, and equipping 100,000 members of the Civil Nursing Reserve was reckoned at £250,000 over 2½ years. This, of course, does not include the wages paid to members once they were called up.

The organization of this extensive scheme turned very largely on voluntary bodies. It was a regional organization, and the two official figures in each region were the Medical Officer of Health and the Group Officer. These worked under a Hospital Officer, who was a medical officer of the Ministry and whose task was to supervise the expansion of the hospital system and to control the movements of casualties and the operation of the scheme under war conditions. The Group Officer—the key of the whole structure—was the Dean or other member of the consulting staffs of the teaching hospitals in the region.

Organization on the voluntary institutions reached its peak point in the most threatened area—namely, that of London. For the purpose of the Emergency Hospital Scheme a special hospital administration was necessary, for which neither the London County Council organization nor the London Borough organizations were found appropriate. The object was to bring into a single working scheme a large number of hospitals of very diverse character and to secure a degree of co-operation

between them which had never existed in peacetime. All this was to be operated under battle conditions—conditions of which no one had had the least experience and which it was impossible even approximately to predict. No one, for instance, could forecast the reactions of the civil population under such conditions.

In these circumstances we built a great part of the whole scheme upon the professional authority, the prestige, and the administrative competence of the heads, nursing and medical, of the great voluntary teaching hospitals; and we were not disappointed.

The actual physical area of the London Region comprised about a quarter of the population, and was, of course, in much the most heavily threatened position. The London Region, a great circular area, was divided into ten triangular slices or sectors, as it might be slices of cake. Each slice or sector except one had at its tip one of the voluntary teaching hospitals. Each Sector was in charge of a Group Officer, who was a distinguished physician or surgeon on the staff of that hospital. He was responsible, under the Director of Emergency Medical Services, London and Home Counties, for the treatment and movement of all cases coming within the Emergency Hospital Scheme. He administered the staff, the doctors, and the nurses of all hospitals within the scheme. He advised on questions of up-grading, and of approving annexes to the sector hospitals. On him lay the duty of co-operating with the adjoining Sectors and with the adjoining Region or Regions.

He was assisted in the discharge of these duties by two medical officers who might act as his deputy. He had also two matrons and two lay officers. One in each pair represented the voluntary hospitals; one in each pair represented the municipal hospitals. In the smallest of the Sectors there was only one representative in each of the three grades just mentioned. This economy was secured by dispensing with the municipal representatives. Each Sector had in addition a "bureau officer" and a subordinate staff varying from 15 to 21.

It is fair to say that in 1941 the Select Committee on National Expenditure, some of whose comments have already been referred to, considered that in view, among other things, of the difference in size of the Sectors—the smallest containing 3,000 emergency beds and the largest some 11,500—some reorganization should be undertaken. They also felt that the Sectors had worked too much as independent units, although they recognized the object of the appointment of the Director and his two assistants to co-ordinate the work of the Group Officers. They considered, however, that the organization should be still further co-ordinated and centralized. But it is worth while to put on record their opinion of the Civil Defence Services which they were reviewing, and in which the Emergency Hospital Services were included. They said: "They have been put to the test of experience. Their need has been proved, their efficiency has been demonstrated, their courage has won the admiration of the world. Such criticisms as we [the subcommittee] offer are solely directed to obtaining the greatest economy compatible with efficiency." It is significant, and it has perhaps scarcely received sufficient attention, that these tributes are paid to an organization, in the case of the hospitals, in which the teaching chiefs and the voluntary hospital matrons, previously untried in these great administrative tasks, were asked to play, and did play, so large a part. The latest tribute was paid no longer ago than Sept. 7 of this year by the *Times*, which said: "With all its faults the emergency hospital scheme was an outstanding success; it came through the severest tests with fine efficiency."

In so vast a preparation many mistakes were inevitably made, and from these, also, useful lessons may be learnt. One which impressed itself most strongly upon me was the danger of over-attention to, or misinterpretation of, central direction. The case of the tuberculosis hospitals was one of these. The direction was given to clear beds at the onset of the emergency—a direction familiar to those of us who have ever, in forward areas, awaited with apprehension the opening of a battle. The directive words were: "To send home all patients no longer urgently in need of hospital treatment." It was intended that these words should apply only to those whose health would not be prejudiced by relinquishing hospital treatment, and also who had accommodation to go to at home. In the event, many cases were cleared whose health was, in fact, not able to stand discharge from hospital and whose accommodation at home was quite insufficient. Similar cases will be in the recollection of many. Much effort was needed to restore the position.

In practice it may be said that the scheme worked flexibly. When the anticipated air raids did not occur the hospitals were again receiving the ordinary sick in the winter of 1939–40. After Dunkirk large numbers of casualties were received on the south-east coast, and the London scheme was tested in reverse, since the movement of cases was towards London and not away from it. Later on in that year the full weight of air attack fell upon London and the southern areas. It was dealt with. Later, a wide extension of the classes of cases admitted took place, and these included civil defence workers, transferred war-workers, transferred sick, and evacuees.

In 1940–1 some £3,000,000 (£2,913,900) was spent on provision and maintenance of additional hospital accommodation, and some 7½ million pounds (£7,671,500) on payments in respect of reserved hospital beds. From Sept. 22 to Dec. 29 (one quarter) £1,200,311 was paid on account for "reserved" beds empty (53,000, declining to 24,000) and £87,268 for occupied beds (3,000, declining to 2,500).

Post-war Hospital Policy

On Oct. 9, 1941, the Minister of Health indicated in the House of Commons the general principles on which the Government proposed to base post-war hospital policy. These were *(a)* that there should be a comprehensive hospital service providing for each treatment appropriate to his need; *(b)* that the duty of providing such a service should be laid on the major local authorities in close co-operation with the voluntary bodies; and (*c*) that the service should be designed by reference to areas substantially larger than those of individual local authorities. These were the main conclusions, though there was an important proviso that special State aid for teaching hospitals, probably in the shape of increased educational grants, must be contemplated.

The whole hospital question, so far as Scotland was concerned, was reviewed in 1942 and 1943 by the Hetherington Committee (Jan., 1942, to Aug., 1943). The position in Scotland differed somewhat from that in England because our native caution had produced a hospital situation pre-war in which our hospitals were better endowed but fewer proportionately than those in England, so that as part of the preparations for war seven new hospitals providing some 7,000 beds had to be built. This figure for peacetime standards, said the committee, would be scaled down to about 5,000.

The Hetherington Committee came to the conclusion that these hospitals presently administered directly by the Department of Health should be transferred to local health authorities, though not necessarily to the authority in whose area any particular hospital was situated. They did not wish to exclude the transfer of a hospital to a voluntary body or to a combination of a voluntary body with a local authority. The committee's views on administration—in particular on finance, which is the keystone of administration—were of much interest. The main body of the committee suggested either a subvention from the local authorities or a direct Exchequer grant. In either case the distribution of the grant should be under committees appointed not by the local authorities but by the Secretary of State. The chairman, Sir Hector Hetherington, suggested a straight grant of State assistance, payable on a formula to every voluntary hospital which would accept the responsibility of providing an efficient and economically administered service as part of a general scheme. The general view of the whole committee was that there should be as little interference with the voluntary hospitals, either in their administration or in their finance, as was possible, particularly by local authorities.

The story may be brought up to date by the decision of the Government, announced in September of this year, to seek power to carry on interim arrangements while the "run-off" of the special war responsibilities continues.

The number of beds reserved for E.M.S. cases in England and Wales has fallen from 187,000 in Jan., 1941, to 63,000 to-day. This has meant a corresponding limitation in the

income of the voluntary hospitals. The present decision is to make Exchequer grants from next April "to such voluntary hospitals as establish their need for such assistance in order to maintain proper services."

It is remarkable that those two lines of investigation—one purely practical and empirical carried out over years on a vast scale, and the other a theoretical review carried out by a distinguished committee—should converge on this point of the excellence of the work of the voluntary organizations and the desirability of leaving it alone as much as possible. Their work is excellent, not merely in the quality of the medical service given, but in the quality of the administrative talent available. I have already pointed out that in the most critical region of all, that of London, the solution which worked over a great part of the field was not to put the voluntary hospitals under the local authorities, but to put the local authorities under the hospitals. The fact is, that administrative talent of a high quality is developed under the very decentralized conditions of the voluntary hospitals to an extent inevitably greater than that reached in the highly centralized large municipal administrations. This seems particularly true in the case of the matrons.

The conclusion from all this seems to be that if the State leaves the self-governing institutions of medicine to do the actual work so far as is possible, making that work financially possible so far as the State deems it necessary, the State will secure the best efficiency of service and the best economy in finance. In addition it will develop opportunities for training talents which are useful in time of peace and invaluable in time of war.

Some Further Considerations

The omens, however, are not entirely favourable. An arrangement in the field of education, similar to one of those which have been suggested in the field of health, has existed in England for many years. I refer to the direct-grant schools. A direct-grant school is one which gets a grant direct from the Board of Education and is not under the local education authority. But the Minister for Education in England last month showed a very north-windy attitude towards this solution. The tolerance for which this country has been distinguished in the past, its power of putting up with apparent incompatibilities, seems to be weakening. It is obviously a disadvantage to us all that this should be so. It is especially a danger in the case of the highly organized communities of which we form part. Unless communities can tolerate in their bosom—tolerate and indeed welcome—the same sort of differences that exist inevitably between individuals, the community is in for a very poor time.

This is above all things true in the relation between Medicine and the State. Personally, I read all the antivivisection and antivaccinationist literature I can get hold of. I do my utmost to practise a robust disbelief in remedies and theories, new and old. I still remember with reverence the teaching of that excellent professor Ralph Stockman, whose first query in observing any case was: "What will happen if we do nothing?" and who once electrified his class by the query: "How does a tiger treat a case of blood-poisoning?" "Do not laugh, gentlemen," he said: "it is a very serious business for the tiger. He lies perfectly still and drinks cold water." I even read the medical opinions of Mr. Bernard Shaw, deeply as I disagree with most of them. But to-day we find Mr. Bernard Shaw and the other iconoclasts supporting a line of thought which certainly will pay little enough respect to his highly individualistic ideas on the subject of medicine, any more than it will to his ideas on a proper system of education.

Well, there is nothing for it but to maintain the position that exceptions, contradictions, and anomalies are part of the make-up of man's mind, as of man's body. A system of medicine which does not recognize and admit these facts is a system of medicine which does not correspond to the facts. But it is paradoxical that the position of the layman in medicine—for, after all, the position of the voluntary hospital, with its lay Board of Governors, is the position of the layman—will have to be contended for, against so much opposition, by medical men themselves.

THE RELATION BETWEEN CONGENITAL OBLITERATION OF THE BILE DUCTS AND ICTERUS GRAVIS NEONATORUM

BY

M. O. SKELTON, M.B., Ch.B.

AND

GEOFFREY H. TOVEY, M.D.
Major, R.A.M.C.

(From the Department of Pathology, University of Bristol, and the Army Blood Transfusion Service)

Icterus gravis neonatorum and congenital obliteration of the bile ducts are two conditions which cause jaundice in the newborn. Most textbooks of diseases of children imply that the differential diagnosis between these two diseases is comparatively straightforward and that they bear no relationship to one another. In 1943, however, Lightwood described three cases of icterus gravis in which the onset of the jaundice was delayed and which, when it once appeared, lasted an inordinate time—for 3½ weeks, 11 weeks, and 3 months respectively. The child in whom the jaundice lasted 3 months ultimately died, and at necropsy the liver showed plugging of the canaliculi with masses of bile and an accompanying hepatic fibrosis which amounted to biliary cirrhosis. Clinically these children had shown persistent acholia and the picture of an obstructive type of jaundice simulating congenital obliteration of the bile ducts. Lightwood questioned whether the plugging of the canaliculi and ducts with bile thrombi in icterus gravis might not be followed in some cases by organization of the thrombi. This would presumably lead to fibrosis of intra- and extra-hepatic ducts so as to produce finally a type of lesion which, seen at necropsy, might well be diagnosed as congenital obliteration of the bile ducts. During the past three years we have encountered several cases of haemolytic disease of the newborn in which there have been either clinical signs simulating congenital obliteration of the bile ducts or a history of this condition in other members of the family (see Table), and which illustrate the association that obtains between these two conditions.

Types of Biliary Obstruction associated with Icterus Gravis

It would seem that the biliary obstruction in children with icterus gravis may take one of two forms: (A) blockage of one of the larger bile ducts with inspissated bile, or (B) conversion of the bile ducts into a fibrous cord.

Examples of Type A.—The child of family Hi (see Table) was at first diagnosed as a case of congenital obliteration of the bile ducts, but because of the deaths of the previous siblings and the presence of some degree of anaemia (R.B.C. 4,180,000 per c.mm. 15 days after birth) Rh investigations were made. Rh incompatibility was found to be present, but despite a blood transfusion the jaundice persisted. A laparotomy was performed for biliary obstruction at the age of 7 weeks, and an obstructing mass of inspissated bile was dislodged from the lower end of the common bile duct by gentle manipulation. Gentle pressure upon the gall-bladder showed the biliary tree now to be patent, and the abdomen was closed. After the operation the jaundice disappeared, bile appeared in the stools, and the child made a complete recovery. The child of family Ha. was admitted to hospital at the age of 6 weeks with severe anaemia, jaundice, and clay-coloured stools. A blood transfusion to correct the anaemia was succeeded by the disappearance of jaundice and the presence of bile in the stools. It is probable that a similar obstructing mass had become dislodged spontaneously after the blood transfusion.

Two almost exactly similar cases have been described by Davidsohn (1945), and Ladd (1935) cites that in 5 of 15 babies upon whom he operated for congenital obliteration of the bile ducts a similar inspissated mass was the causative factor. Rh investigations were in keeping with the diagnosis of haemolytic disease in Davidsohn's cases, and it seems likely that those described by Ladd originated as cases of icterus gravis but in which the clinical features of haemolytic disease passed later into those of congenital obliteration.

Examples of Type B.—The other type of biliary obstruction associated with icterus gravis—namely, replacement of all or part of the extrahepatic duct system by a fibrous cord—is illustrated by the child of family G. E. in our series and by the second child of family M. Pasachoff (1935) also has described a negro child with icterus gravis who died at 7 days with erythroblastosis foetalis and congenital fibrous obliteration of the common duct.

Mechanism

It has been suggested by Hawksley and Lightwood (1934) that the probable mechanism of obstruction of the bile ducts by plugs of bile in cases of haemolytic disease is that the bile produced by the liver is very viscid and tends to stick in the intra- and extra-hepatic ducts. We have noticed, however, in 11 cases of icterus gravis studied histologically that the plugging of canaliculi by bile thrombi is commonly associated with evidence of hepatic cell damage—a severe and significant degree of cloudy swelling, or fatty infiltration, or actual cell necrosis. In the damaged liver of infective hepatitis there is marked stagnation of bile in the fine intralobular canaliculi just outside the areas of maximal necrosis, which would suggest that a similar obstruction by necrotic and damaged cells is largely responsible for the production of the biliary thrombi in icterus gravis. Once these thrombi have formed they may aggregate and produce an obstructing mass in the extrahepatic bile ducts, the final effect being to add an obstructive element to the jaundice caused by the haemolysis.

Occasionally an additional factor is present in significant damage to the bile-duct epithelium, as described by Wanstrom (1933). The biliary epithelial cells become swollen, thus tending to aggravate the condition, and desquamated epithelial debris lying free in the lumen of the bile ducts may further add to the obstruction. We have seen a similar biliary damage in one instance.

In some cases of icterus gravis of long standing biliary stasis may occur, producing a picture of hepatic cirrhosis very similar to that of congenital obliteration. This is the type of case described by Lightwood in 1943.

It is open to speculation whether the complete fibrosis of the common duct found in case G. E. of our series can be attributed to organization of a plug of inspissated bile similar to that found in other cases. The child died when only 2 days old, and it is our belief that although the hepatic cell damage occurs *in utero* in cases of icterus gravis and is probably due to an Rh antigen–antibody reaction occurring on the cells themselves, yet the biliary thrombi do not appear until extra-uterine life. It is rare for cases of icterus gravis to be jaundiced at the moment of birth; usually clinical icterus does not become apparent for some hours after. This absence of jaundice at the time of delivery is probably accounted for by the fact that while the child is in the uterus it is not called upon to excrete its own bilirubin but this is excreted by its mother, as postulated by Hampson in 1929. Once the child has to lead a separate existence, however, its liver damage becomes manifest and the events previously described take place.

If this be so, then there would be no time for biliary thrombi to have caused the fibrosis found in a 2-day-old child, and this particular instance cannot be satisfactorily explained on that hypothesis. There seems to be some other factor that requires explanation. Buchan and Comrie (1909), in one of the earliest anatomical studies in icterus gravis, described obstruction of the lower end of the common duct and of the ampulla of Vater in two of their five cases. This obstruction was due to swollen biliary epithelium beneath which was an infiltration by inflammatory cells. McGibbon (1912) has described a similar case, and these may represent a connecting stage between the two forms of bile-duct obstruction in icterus gravis.

The question may be raised as to the frequency with which other congenital abnormalities may be associated with haemolytic disease of the newborn, thus suggesting that this latter type of congenital obliteration may be caused by some general genetic incompatibility rather than be the result of an Rh antigen–antibody reaction occurring *in utero*. In a series of 44 cases studied clinically or at necropsy we have seen no associated congenital abnormalities other than those of the bile ducts, and Harrison and Meacock (1945) found no evidence of Rh-incompatibility in a group of 25 infants with such major congenital abnormalities as anencephaly, hare-lip, etc.

We do not suggest, of course, that all cases of congenital obliteration of the bile duct are associated with erythro-

Details of the Cases

Family	Pregnancy	Date	Clinical Features	Necropsy Findings	Rh Investigations		
					Father	Child	Mother
G. E.	1	1941	Normal; alive and well		Positive	Positive	Negative
	2	1942	Jaundice 1st day; bile in urine. Died aged 2 days	Erythroblastosis. Marked erythropoiesis liver and spleen. Fibrous obliteration of common bile duct. Kernicterus		Not examined	No Rh antibodies demonstrable 3 years after birth of affected child
M.	1	1939	Normal; alive and well		Positive	Positive	Negative. Rh antibodies in mother's blood 3rd and 4th pregnancies
	2	1940	Jaundice 1st day; bile in urine; clay-coloured stools. Cholecystogastrostomy performed for fibrous occlusion of common duct. Recovery			"	
	3	1943	Jaundice 2nd day. Died 4th day	Erythropoiesis. Bile plugs in small ducts and canaliculi. Kernicterus		"	
	4	1944	Jaundice 2nd day. Died 3rd day	Slight erythropoiesis. Cloudy swelling of liver cells. Kernicterus		"	
L.	1	1933	Full-term. Died neonatal asphyxia		Positive	Not examined	Negative. Rh antibodies in mother's blood at 6th pregnancy
	2	1935	Neonatal jaundice, but recovered without treatment; alive and well			Positive	
	3	1936	Miscarriage at 3 months			Not examined	
	4	1938	Jaundice. Died 10th day	Congenital obliteration of common bile duct		"	
	5	1943	Miscarriage at 3 months			"	
	6	1945	Jaundice 1st day. Hb 89% at 48 hours. Biphasic van den Bergh. Bile in urine. Recovery after transfusions			Positive	
Ha.	1–5		First 2 children normal; next 3 jaundiced but recovered without transfusion		Positive	Not examined	Negative. Rh antibodies present in mother's blood at 6th pregnancy
	6	1945	Increasing jaundice from shortly after birth. Admitted to hospital at 6th week. Anaemic; clay-coloured stools; bile appeared in stools after blood transfusion. Recovery			Positive	
Hi.	1–3	1941 1942	Three premature children Died shortly after birth		Positive	Not examined	Negative. Rh antibodies present at 4th pregnancy
	4	1944	Jaundice 2nd day. Bile in urine; no bile in stools. Van den Bergh—direct positive. Operation at 7 weeks for biliary obstruction. Inspissated mass dislodged from common duct. Recovery			Positive	

blastosis foetalis; those cases of congenital obstruction with anomalous development of the biliary tract or with other malformation such as transposition of the viscera are almost surely developmental. However, the fact that some of them appear to be associated with icterus gravis is of practical importance. It cannot be too strongly stressed that any family showing a history of congenital obliteration should be examined for evidence of rhesus-incompatibility. Only in this way can preparations be made to anticipate haemolytic disease occurring in any subsequent child.

Since obstructive jaundice from plugging of the bile ducts with inspissated bile does occur in some instances, we have recently started the practice of massage over the gall-bladder region, twice daily, in cases of icterus gravis as a prophylactic measure in the hope of avoiding impaction. This we accomplish by inserting the tips of the fingers gently but firmly under the right costal margin, with the child in a sitting position, and allowing it to cry or breathe out forcibly against them. It is hoped that by this method either an actual or a reflex contraction of the gall-bladder will help to maintain a flow of bile through the common bile duct and hence withdraw bile from the intrahepatic canaliculi.

Summary

Evidence is adduced which suggests that certain cases of so-called "congenital" obliteration of the bile ducts occur as sequelae of icterus gravis neonatorum. Various mechanisms are suggested to account for the obstructive element in this disease, and the importance of recognizing this feature of haemolytic disease is stressed.

We wish to express our thanks to Prof. T. F. Hewer for his advice and help in this work and for providing material from one of his cases, which appears in this series. We also wish to acknowledge our gratitude to Dr. Beryl Corner and Dr. F. W. Lewis for material from two cases, and to Mr. S. A. Edwards and Mr. R. Polding for technical assistance.

REFERENCES

Buchan, A. H., and Comrie, J. D. (1909). *J. Path. Bact.*, **13**, 398.
Davidsohn, I. (1945). *J. Amer. med. Ass.*, **127**, 633.
Hampson, A. C. (1929). *Lancet*, **1**, 429.
Harrison, C. V., and Meacock, E. C. (1945). *J. Obstet. Gynaec. Brit. Emp.*, **52**, 36.
Hawksley, J. C., and Lightwood, R. (1934). *Quart. J. Med.*, **27**, 155.
Ladd, W. E. (1935). *Ann. Surg.*, **102**, 742.
Lightwood, R. C. (1943). *Arch. Dis. Childh.*, **18**, 156.
McGibbon, J. (1912). *Trans. obstet. Soc. Edin.*, **38**, 285.
Pasachoff, H. D. (1935). *Amer. J. Dis. Child.*, **50**, 1084.
Wanstrom, R. C. (1933). *Amer. J. Path.*, **9**, 623.

THE Rh FACTOR AND BLOOD TRANSFUSION

OBSERVATIONS ON A GROUP OF Rh-NEGATIVE INDIVIDUALS TRANSFUSED WITH Rh-POSITIVE BLOOD

BY

WILLIAM CURRY MOLONEY, M.D.
Major, M.C., A.U.S.

This paper is concerned with Rh studies on 138 wounded American soldiers transfused with whole blood at the 163rd (U.S.) General Hospital. Of this group 18 were found to be Rh-negative; these cases were investigated for the presence of Rh antibodies and also in regard to the survival of Rh-positive cells in the circulation of Rh-negative individuals.

Methods and Materials

The techniques for Rh testing and for the detection of Rh antibodies were carried out according to the methods described by Taylor, Race, Prior, and Ikin (1942). The test for blocking antibody was that of Wiener (1944). Some of the Rh-testing serum was obtained from the Army Medical School, Washington, D.C., but the greater part of this work was carried out with potent human anti-Rh sera made available through the kindness of Dr. R. R. Race and the late Dr. G. L. Taylor, of the Galton Laboratory Serum Unit, Department of Pathology, Cambridge.

The great majority of the patients had severe wounds of the limbs which necessitated relatively long periods of hospital treatment, and all but a few cases were available for repeated Rh tests. All except one patient (Case 5) had received Group O blood in advanced medical units before admission. Records of these transfusions were meagre, and consisted usually of a note on the amount of blood and the date administered. Nearly all the blood used for transfusions at this hospital was obtained from the Blood Bank of the Department of Pathology, University of Cambridge, and the Regional Transfusion Service (British) in Cambridge. In this blood, glucose–disodium citrate mixture was used as the preservative, and the blood was not stored longer than two weeks before administration.

In the forward medical units of the U.S. Army the blood used was supplied through the European Theatre of Operations Blood Bank. Some of this blood came from the U.S., preserved in Alsever's solution; the blood drawn in the European theatre from U.S. Army personnel was preserved in a citric acid–sodium citrate–glucose mixture.

Results of Studies

Of the 138 patients studied, 18 (13%) were Rh-negative. These Rh-negative cases may be considered in three groups.

Group I

The patients in this group were given known Rh-positive blood at this hospital. The observations on these 6 cases (Nos. 1 to 6) furnish the most important data in this investigation.

Case 1.—Owing to retained Rh-positive cells from a transfusion 30 days previously, the patient was considered to be Rh-positive.* He was given 1,700 c.cm. of Group A Rh-positive blood, but two weeks after the last transfusions the Rh test was only moderately positive and there were many unagglutinated cells. On the 23rd day following the last transfusion very few Rh-positive cells were found, and a test on the 29th day showed a complete absence of Rh-positive cells. A febrile reaction occurred during the second transfusion at this hospital, but no evidence of haemolysis was observed in the urine or plasma. Since subsequent transfusions with the same type of blood gave no difficulty, it was assumed that this reaction was pyrogenic in nature. Tests for blocking and agglutinating antibodies were negative.

Case 2.—This patient showed no retained Rh-positive cells 41 days after a transfusion of known Group A Rh-positive blood. Since no tests were carried out at an earlier date it is not possible to say how much more rapidly the Rh-positive cells were eliminated from the circulation.

Case 3.—In this case the Rh test was weakly positive one month after 1,500 c.cm. of blood had been given in France. Transfusion with 500 c.cm. of a known Group A Rh-positive blood, 8 days later, there were but a few Rh-positive cells left, and 16 days after the transfusion no Rh-positive cells were detectable.

Case 4.—Owing to a transfusion 12 days before admission the patient was thought to be Rh-positive. He was transfused with 500 c.cm. of Group A Rh-positive blood; the Rh test 34 days later revealed no Rh-positive red cells. As in Case 2, earlier testing might have demonstrated more rapid elimination of Rh-positive red cells.

Case 5.—No transfusions were given previous to admission. He was found to be Rh-negative, but nevertheless was given 500 c.cm. of Group O Rh-positive blood. Three days later only a few scattered Rh-positive cell clumps were found, and on the 4th day after transfusion no Rh-positive cells could be detected. This case is of special interest in that no prior transfusion had been given so that previous iso-immunization seems to have played no part in this phenomenon.

Case 6.—In an advanced unit two days before admission the patient had received 500 c.cm. of Rh-positive blood. The Rh test showed visible agglutination and he was given 1,000 c.cm. of Group A Rh-positive blood. After three transfusions the haematocrit reading did not rise to the expected level, and in preparation for further transfusions it was noted that the Rh test gave less marked agglutination than before and that at least half of the red cells were unagglutinated. During the following month a total of 3,000 c.cm. of Group A Rh-negative blood was given. The patient had no untoward reactions and there was no evidence of haemolysis in the plasma or urine after any of the transfusions. Within 10 days the bulk of the Rh-positive cells were eliminated, but small clumps of Rh_1 and Rh_2 cells persisted. The patient was completely negative being of the genotype rhrh.* Repeated tests for blocking and agglutinating antibodies were entirely negative until 53 days after the last Rh-positive transfusion. On this occasion the patient's serum was tested by Diamond's (Diamond and Abelson, 1945) technique. A drop of oxalated whole blood, Group O Rh-positive, was placed on a slide and a small drop of the patient's serum

* The Rh typing was carried out by Dr. R. R. Race.

mixed with it and allowed to stand at room temperature. Within five minutes a marked agglutination was visible on the slide. This finding was checked with the usual tube agglutination technique, and visible agglutination in dilutions of 1:2 with microscopical clumping at 1:4 could be demonstrated. No blocking antibody was found. Diamond's test, employed eight days before in this case, was negative.

Group II

This group of 4 patients (Cases 7 to 10) had received blood before admission, but Rh tests showed them to be negative although clumps of Rh-positive blood had been given.

In Case 7 a considerable number of Rh-positive cells were retained for 47 days ; by the 54th day most were gone, and all Rh-positive cells had disappeared within 60 days of transfusion. In Case 8 a similar situation was found, with complete loss of Rh-positive cells within 58 days. In Case 9 Rh-positive cells disappeared within 28 days.

Case 10 did not, unfortunately, remain under observation very long. This patient had had 2,250 c.cm. of blood before admission. With the last transfusion, a note on the chart stated that owing to chills, fever, and urticaria the transfusion was stopped. On admission to this hospital 10 days later there was no icterus or impairment of renal function. The nature of this reaction was not established. Practically all Rh-positive cells had been eliminated and only a very few small Rh-positive cell clumps could be found 10 days after the last transfusion.

Group III

In the 8 cases comprising this group the Rh type of blood given before admission was not known, and since no Rh-positive cells were retained the findings were incomplete. Statistically the chances greatly favour Rh-positive blood having been administered to these patients, but owing to lack of data no conclusions are warranted in this group.

Discussion

The survival of transfused red blood cells is influenced by a number of factors. The age of the blood, the preserving solution, and conditions of storage are obviously important considerations. In this study the cases in Group I were given blood preserved in a disodium citrate–glucose solution ; the blood was kept at 4° C., and no blood stored over 14 days was used. On two occasions fresh whole blood in citrate solution was given to cases in Group I.

The blood used in transfusions before arrival at this hospital was stored under less favourable conditions. It is possible that some of this blood preserved in Alsever's solution, or in glucose–citrate mixture, would survive for 60 days under proper conditions. However, with varying temperatures and the considerable handling necessitated by conditions in advanced medical installations, serious impairment in the ability of such stored blood to survive for normal periods must be admitted. So, in contrast to studies of cell survival in normal controls (Callendar, Powell, and Witts, 1945), the recipients in all the cases under consideration were seriously wounded men. All had received sulphonamides and penicillin ; many had some degree of sepsis. Obviously such complicating factors would not enhance the survival of transfused red blood cells. Therefore the rapid elimination of transfused red cells in certain cases Group II and Group III might be attributed to non-specific factors rather than a phenomenon related to Rh or any other antigen–antibody mechanism.

However, the blood administered at this hospital to the cases Group I was preserved and stored in a manner similar to blood which, in recent transfusion studies, survived satisfactorily for 60 days or more (Loutit, Mollison, and Young, 1945). For this reason observations on the survival of this blood are of considerable interest. In Cases 1, 2, 3, and 4 the transfused red cells were eliminated rapidly and the previous transfusions may have had a sensitizing effect in spite of the fact that no antibodies were detected.

Case 5 had been given plasma but no blood before admission to this hospital. Within 3 days following a transfusion of 1,000 c.cm. of Group O Rh-positive blood he had eliminated all Rh-positive cells. No reaction or evidence of haemolysis had developed. Dacie and Mollison (1943) observed a similar rapid elimination of Rh-positive cells in an Rh-negative recipient during experiments on the survival of transfused red cells. They also noted this phenomenon in Rh-positive individuals, and Mollison (personal communication) is of the opinion that certain recipients have a peculiar ability, unrelated to iso-immunization, of eliminating transfused red cells.

In this group of Rh-negative cases repeated attempts were made to detect antibodies for the Rh factor. However, in only one case (No. 6) were antibodies discovered. In this patient, 53 days after the last Rh-positive blood was given, good anti-Rh agglutinins were found. If repeated observations had been carried out over a longer period of time antibodies for the Rh factor might have been discovered in other cases. Almost at the end of these investigations the important work of Diamond became available (Diamond and Abelson, 1945). Diamond found that even weakly agglutinating anti-Rh sera and sera containing blocking antibodies, when mixed on a slide with concentrated Rh-positive red-cell suspensions, gave a rapid and definite macroscopic agglutination. At the time only 3 Rh-negative cases remained in the hospital, but one of these (Case 6) gave a markedly positive reaction by Diamond's method.

In addition to detectable antibodies there are other more occult factors concerned in the destruction of Rh-positive cells in Rh-negative recipients. Wiener (1945) has pointed out that the biologic test will at times reveal a haemolytic process in a sensitized individual which cannot be demonstrated by *in vitro* tests. It is quite probable that other as yet unrecognized humoral products of sensitization may be discovered. Furthermore, it is not unreasonable to suspect that the haemoclastic process may be activated by a combination of both humoral and reticulo-endothelial sensitization. This aspect of the problem needs further investigation.

From a practical standpoint, in advanced medical units in wartime the problem of Rh-incompatibility must be disregarded. In general hospitals and other fixed installations a blood bank with available Rh-negative blood should be maintained. All Rh-negative patients should receive Rh-negative blood ; this is especially important if blood has been previously given or if there is a possibility that multiple transfusions will be necessary. Diamond, in an excellent review on the clinical aspects of the Rh factor, points out the danger of iso-immunization by repeated blood transfusions, especially in the treatment of war wounds. In Rh-negative patients given Rh-positive blood difficulty may be encountered in deciding whether the patient is actually Rh-positive or not. In this series of cases the first serum available was of low potency,† so that weak and moderately positive tests on retained Rh-positive cells resulted in cases being classified as Rh-positive. With strong anti-Rh serum typical pictures of good clumps of Rh-positive cells surrounded by unagglutinated Rh-negative cells will usually indicate the true situation. In cases with retained Rh-positive cells further and more serious sensitization should be avoided by the administration of only Rh-negative blood if more transfusions are necessary.

Aside from the possibility of immediate or remote reactions, the evidence in the cases described above indicates that the transfusion of Rh-positive blood to Rh-negative individuals is inefficient because of the rapid elimination of the transfused red cells in many cases.

Summary and Conclusions

In a series of wounded soldiers investigated after transfusion of whole blood there was evidence of abnormally rapid elimination of transfused Rh-positive red cells from the circulation of some Rh-negative recipients.

While demonstrable antibodies were found in only one case, it is quite possible that iso-immunization and latent sensitization occurred in others of this group.

The mechanism of rapid loss of Rh-positive red cells from Rh-negative recipients is obscure. Various extrinsic factors may have influenced this phenomenon in certain cases in this series, or some as yet undetected antibody may play a part in this haemolytic process. The possibility that an activated reticulo-endothelial system (or other cellular agency) may be involved in the rapid elimination of Rh-positive cells deserves further study.

From the practical standpoint, Rh-negative individuals should be transfused with Rh-negative blood. While Rh iso-immunization may

† This serum could not be refrigerated in transit, and lost its potency.

present few serious immediate reactions, any possibility of Rh sensitization should be avoided.

I am grateful for the unfailing kindness, assistance, and advice of Dr. R. R. Race and the late Dr. G. L. Taylor, of the Galton Laboratory Serum Unit, Department of Pathology, Cambridge University. Thanks are due also to the members of the staff and the laboratory personnel of the 163rd (U.S.) General Hospital for their co-operation and help in this study.

REFERENCES

Callendar, S. T., Powell, E. O., and Witts, L. J. (1945). *J. Path. Bact.*, **57**, 129.
Dacie, J. V., and Mollison, P. L. (1943). *Lancet*, **1**, 550.
Diamond, L. K. (1945). *New Engl. J. Med.*, **232**, 447.
—— and Abelson, N. M. (1945). *J. Lab. clin. Med.*, **30**, 204.
Loutit, J. F., Mollison, P. L., and Young, I. M. (1943). *Quart. J. exp. Physiol.*, **32**, 183.
Taylor, G. L., Race, R. R., Prior, A. M., and Ikin, E. W. (1942). *British Medical Journal*, **2**, 572.
Wiener, A. S. (1944). *Proc. Soc. exp. Biol.*, N.Y., **56**, 173.
—— (1945). *N.Y. St. J. Med.*, **45**, 1.

ASYMPTOMATIC KALA-AZAR IN SOLDIERS FROM OVER-SEAS

BY

T. G. ARMSTRONG, M.D., M.R.C.P.

Late Lieut.-Col., R.A.M.C.; Officer in Charge of a Medical Division in a Military Hospital

The object of this note is to draw attention to the ease with which kala-azar may be overlooked in patients who make no spontaneous complaints. Two cases are described; both occurred in British troops who had served on the Mediterranean littoral. The first patient was seen in Italy and the second in England 20 months after his return from North Africa. Both, when pressed, admitted minor symptoms of several months' duration: these they had considered too trivial to warrant attendance on sick parade.

Classical kala-azar presents usually as a high swinging pyrexia, with periods of remission, and with marked toxaemia and sweating during the pyrexial periods. In both the cases reported here the fever was either slight or trivial, and toxaemia was absent.

Case I

Pte. H., aged 20. This man served in North Africa from Nov., 1942, to Nov., 1943. His disease probably originated in North Africa, for on arrival in Italy in Nov., 1942, he was stationed in the dock areas of Salerno and Naples, where kala-azar is not likely to be encountered. In May, 1944, he was ordered to report sick by his section sergeant, and was admitted to hospital. On direct questioning he admitted to a slow onset of general malaise, loss of weight, lassitude, and easy fatigability for the past 5 months. During this time he had continued to discharge his normal duties.

On examination he was thin and anaemic, and was found to be running an intermittent low-grade pyrexia up to 99° F. There were no abnormal signs in the heart or the lungs. The spleen was soft, was very difficult to feel, and was enlarged to three or four finger-breadths below the costal margin. He was seen by several medical officers and specialists, who expressed doubt as to the splenic enlargement owing to its extreme softness and the absence of a definite edge. It was not until three or four weeks after his admission that the spleen was unreservedly accepted as being enlarged. The liver was normal in size. On the basis of the presenting clinical findings, and in the absence of a definite splenic enlargement, he was at first thought to be suffering from pulmonary tuberculosis; this was excluded by radiography.

The results of investigations were as follows. Many malaria films were negative. May 13: R.B.C., 3,120,000 per c.mm.; Hb, 59%; W.B.C., 4,850 per c.mm. (polymorphs 34%, lymphocytes 53%, monocytes 9%, eosinophils 4%); B.S.R., 58 mm. in 1 hour. May 26: W.B.C., 2,160 per c.mm. (polymorphs 24%, monocytes 5%, lymphocytes 70%, eosinophils 1%). Formol-gel test, negative. June 9: At this point the splenic enlargement was accepted as genuine, and in view of the marked leucopenia and granulopenia a marrow puncture was performed. Leishman-Donovan bodies were found in moderate numbers in the bone marrow. An inguinal gland was punctured but showed no parasites in the stained film.

The patient was treated with stilbamidine (diamidinostilbene), and made a slow but uneventful recovery.

Case II

Gnr. B., aged 25. This soldier served in North Africa from Jan., 1943, to Jan., 1944, when he was invalided to the United Kingdom with a severe attack of diphtheritic polyneuritis. He recovered completely and was returned to duty, remaining in England until the onset of his present illness. In Sept., 1944, he was admitted to hospital with an anxiety state following the flying-bomb attacks, and says that he was given a full physical examination at this time. After his return to duty he continued his work for nearly a year, and in Sept., 1945, came up for routine medical examination before demobilization. He was found to have a very large spleen and was admitted to hospital for investigation.

On admission on Sept. 23 he made no spontaneous complaints, but on direct questioning admitted to some dyspnoea on exertion for about 12 months, and had noticed that his belly had been increasing in size for about 9 months. He was unaware of any pyrexia, but had had occasional shivering attacks. He did not believe that he had become thinner. He denied ever having suffered from malaria.

On examination he was pale and thin. His complexion was sallow and there was a slight brownish pigmentation of the anterior axillary folds. His temperature chart showed a nightly rise to 100°, with an occasional double crisis during a 24-hour period. There was a mild tachycardia, the pulse rate varying between 90 and 100. Sweating was not marked. The tongue was clean and moist. The chest showed dullness and diminished air entry at the left base owing to the enormous size of his spleen, but the lungs and heart were otherwise clear. The abdomen was tense and showed on its surface a number of dilated veins. The spleen extended well below the umbilicus and just crossed the midline. It was hard but not tender. The liver was almost certainly enlarged to two to three finger-breadths below the costal margin, but it was covered with a resonant layer of colon, and neither an edge could be felt nor dullness to percussion be demonstrated. The lymph glands were normal in size and consistency.

Investigations resulted as follows: R.B.C., 3,120,000 per c.mm. Hb, 55%; W.B.C., 1,400 per c.mm. (polymorphs 38%, monocytes 5%, lymphocytes 57%). Marrow puncture showed many Leishman-Donovan bodies. Ring forms of *Plasmodium vivax* were also seen. Gland puncture: Leishman-Donovan bodies were also easily found in smears made from the juice extracted by puncture from an apparently normal inguinal lymph gland. Formol-gel test, strongly positive.

The patient is at present being treated with stilbamidine.

Discussion

Though a rare complaint in British troops even on the shores of the Mediterranean, where the disease is endemic, kala-azar will certainly be seen for a time in England in troops who have returned from over-seas. In such persons it is not likely to occur very commonly, but it may well come to compare with the rarer blood diseases in frequency of appearance. If the mind of the physician is not attuned to the possibility of its appearance kala-azar may well be wrongly labelled and treatment withheld, with serious results.

The differential diagnosis in the slightly atypical forms recorded here should not be difficult. At first sight they may resemble pleurisy with effusion or phthisis. When the spleen is found, chronic malaria offers itself as an obvious diagnosis. When blood films are negative the chronic leukaemias come into question. The characteristic leucopenia may then suggest an "aleukaemic phase" in a myelocytic leukaemia, or perhaps some disease allied to the ill-defined Banti syndromes and splenic anaemias. In such cases sternal-marrow films are almost certain to be made; but the diagnosis may be missed even then, for the Leishman-Donovan bodies may be overlooked if the pathologist is not on the watch for them and has not been specially briefed by the clinician. They are often scanty in the bone marrow and may require a long search. If the bone marrow films are negative it is always worth while to examine the juice obtained from the inguinal glands by puncture with a hypodermic needle. This should be done even if the glands are normal in size.

Summary

Two well-advanced cases of kala-azar with only slight fever and toxaemia are described.

The differential diagnosis, in relation to practical medicine in England, has been very briefly discussed.

It is stressed that further cases will occasionally be seen. A special watch should be kept for them.

S. Ben-Asher (*Ann. intern. Med.*, 1945, **23**, 431) records the case of a woman, aged 43, with mitral stenosis and auricular fibrillation in which an embolus in the right kidney resulted in rise of arterial pressure. The blood pressure returned to normal with disappearance of symptoms of renal infarction.

FOUR CASES OF RUSSELL'S VIPER BITE

BY

P. H. WYON, M.B.

Major, R.A.M.C.; Mobile Surgical Unit

Rarely has one a chance to see a number of snake-bite cases over a short period. These four cases were selected from 12 which occurred within a fortnight, in the same locality in Central Burma at the beginning of the Monsoon, the time when Russell's viper is known to be most active. The distribution of this snake is over India, Burma, Malaya, and the Dutch East Indies; and as its bite is curable if promptly treated, these cases have considerable topical interest.

Treatment Adopted

The 12 cases were treated according to a routine. If not already in place, a tight tourniquet was quickly applied to the limb above the bite. Antivenene was administered intravenously at once. Most authorities agree that it should be given in large doses—as much as 30 c.cm. initially, followed by 10 c.cm. hourly up to a total of 80 or 100 c.cm.

The patient is next anaesthetized with pentothal, and an incision at least 3 in. long made, if practicable, in the line of the bite. It was carried down to, but not through, the deep fascia, unless there was evidence that this structure had been penetrated. The incision was made for the purpose of diagnosis and of treatment. In each of the four cases of Russell's viper bite the typical purple-to-black discoloration was present. These cases were then treated drastically by venesection from the affected limb and by retaining a venous tourniquet for as long as 18 hours. By releasing the tight tourniquet regularly, intermittent venesection was achieved. If necessary the patient was transfused with whole blood. The only method of saving life is by preventing the venom from reaching the general circulation. Antivenene alone does not save life.

The other eight cases of this series all showed definite punctures. In three the snakes were available, and were identified as almost certainly non-poisonous. However, each patient was incised at once: some showed no reaction at all; others, clear oedema only. As a safeguard a venous tourniquet was retained some hours and antivenene was administered. No case showed any generalized reaction.

Description

In each of the four cases of this series the snake was identified beyond doubt as a Russell's viper. The largest was sent to the district laboratory for confirmation. This snake was 4 ft. 6 in. in length, and fully 2½ in. in diameter from the "shoulder to the vent," where it rapidly tapered. The Russell's viper is identified by the triple row of diamonds, coloured black to dark brown, down the back. The centre row is the most strongly marked. The dorsal scales are small and equal in size; the ventral scales go right across the belly. In the upper jaw are the two backward-curving fangs in the "canine" position. In the large specimens the fangs are 3/4 in. long. It is of interest that a small Russell's viper 2 ft. 6 in. long, and no thicker than a thumb, caused severe symptoms in one case.

Case I

An Indian pioneer, aged 30, bitten at 12.30 a.m. on May 18, 1945, by a Russell's viper 4 ft. long. No notes on field card except that he was given 10 c.cm. of antivenene soon after the bite. The case was first seen by the surgeon at 9 a.m. the same day. The whole of the right forearm was tensely swollen and tender; on the anterior surface of the wrist two punctures were surrounded by a dark discoloured zone. Pitting oedema extended for some inches above the elbow. Pulse 100; volume fair. A tight tourniquet was applied to the upper arm. 10 c.cm. of antivenene (conc.) was given I.V., and repeated twice at half-hourly intervals. Pentothal at 10 a.m. Multiple incisions on anterior surface of forearm, releasing great tension. Subcutaneous tissues at wrist were black and not bleeding; at elbow, purple and bleeding only slightly. Deep fascia was incised —muscle of normal colour and not under tension. A venous tight tourniquet was retained for six hours thereafter. At 2 p.m., pulse 140, barely perceptible at wrist, but B.P. 140/80. At 8 p.m., pulse 150–160; pulseless at wrist; vomiting. I.V. glucose-saline given (10 c.cm. antivenene to pint)—3 pints in 7 hours. At 11 p.m., mentally clear; sat up spontaneously; no pulse at wrist; swelling had spread to pectoral region. The patient died at 5 a.m. next day. He was mentally clear to the last. No necropsy.

Case II

A British gunner, aged 25, was bitten just after midnight of May 19, 1945, by a Russell's viper 4 ft. 6 in. long. A tight tourniquet was applied to the upper arm within a few minutes; two 1/4-in. incisions were made through the bites. 10 c.cm. antivenene (conc.) given I.V. Admitted to surgical ward at 1 a.m. Very tender round site of bite on the left thenar eminence. Swelling extended 2 in. upwards from punctures, which were 3/4 in. apart. A vein on the dorsum of the wrist felt quite firm, as if thrombosed. Pulse 100; patient was alarmed, as the snake was "as thick as your wrist." 10 c.cm. antivenene (conc.) given I.V., and repeated 1/2-hourly for 4 more doses. 1.30 a.m.:—Pentothal; 3-in.-long incisions made through each puncture. Subcutaneous tissues and muscles of thenar eminence found to be black to a depth of 3/4 in. Dorsum of wrist incised and the vein opened, but bled freely when tourniquet was maintained at venous pressure. Venesection 1/2 pint from this vein. Later it was found that this blood, and also the blood from the opposite arm (taken for cross-matching), did not clot even after 10 hours. It sedimented like citrated blood; the supernatant plasma showed very slight haemolysis in the lower part. A tight tourniquet (Esmarch's) was then applied at the elbow and released for 5 minutes every half-hour. As a venous tight rubber tourniquet below this was never released intermittent venesection was achieved. The venous tourniquet was retained for 18 hours. At 11 a.m. the patient was moderately exsanguinated. Pulse 120; volume satisfactory. One pint of Group O (IV) blood was transfused, followed by I.V. saline drip (10 c.cm. conc. antivenene to pint), 2 pints in 5 hours, followed by a second pint of blood. 10 p.m.:—Severe oedema of forearm below tourniquet; no spread of discoloration; both tourniquets removed; pulse 100; condition satisfactory; 20 c.cm. antivenene given I.V.

May 21.—Condition improving; oedema of forearm subsiding; no signs of general absorption of venom.

May 22.—Pentothal. The three gaping wounds were found to be very clean; they were sutured. Parenteral penicillin given for 5 days.

May 30.—Sutures removed; 2 wounds had healed 100%, one 90%. Severe general debility, in excess of that expected from his anaemia. Though a robust and very well built man, he was unable to walk.

June 1.—Felt better; sat up; hand and finger movements full range. Evacuated to base; long convalescence recommended.

Case III

Indian sepoy, aged 35, bitten at 1 a.m. on May 26, 1945, by a Russell's viper 2 ft. 6 in. long. No notes on card. Brought to surgical unit at 8 a.m. Two punctures present on anterior surface of right ankle. Oedema of whole right foot and ankle. 10 a.m.:—Pentothal. Incision 4 in. long through punctures. Tissue 1/2 in. by 1/2 in. at site of punctures was black, with clear oedema round. Venous tight tourniquet retained 18 hours. This caused mild venesection. 10 c.cm. antivenene (conc.) given I.V., and every hour for 4 hours. *May 27:*—No evidence of general absorption of venom. Quick recovery occurred. Presumably little venom had been injected. The incisions healed in 14 days.

Case IV

Indian tailor (military), aged 25, bitten at 6 a.m. on May 26, 1945, by a Russell's viper 2 ft. 6 in. long. Admitted to surgical unit at 10 p.m. Two punctures seen 3 in. below elbow; tender; forearm and hand oedematous. He walked to hospital. 11 p.m.:—Pentothal. Incision through the punctures. Two small black areas seen, surrounded by oedematous subcutaneous tissues. 10 c.cm. conc. antivenene given I.V., and repeated 3 times hourly. Venous tourniquet applied above elbow; slow venesection occurred.

May 27.—Condition deteriorating; pulse 120, barely perceptible at wrist, but B.P. normal (sounds very faint). Mentally clear; restless; vomiting. Venous tourniquet retained 24 hours, but he did not appear exsanguinated. 12 noon:—Two pints whole blood transfused, followed by I.V. drip, with antivenene 10 c.cm. to pint. Pulse improved slightly; urine contained albuminous clots.

May 28.—Pulse 120; poor volume. Abdomen distended; meteorism; vomiting; diarrhoea. The condition resembled paralytic ileus. I.V. saline continued. Continuous gastric suction started; green fluid aspirated.

May 29.—Pulse 110. Abdomen still tumid and resonant. I.V. saline and antivenene continued; gastric suction.

May 30.—Chest: moist sounds; abdomen rather less distended. Saline and suction discontinued. Later no vomiting; drinking well. Pulse now improved.

May 31.—Chest clear; asking for food. Recovery. Incision healed in 10 days.

Points of Interest

The most striking points are: (1) The bites are tender from the first; the swelling spreads steadily. (2) On incision at the site of puncture the subcutaneous tissues are black, due to extravasated and altered blood and later to necrosis. In the fatal case this discoloration spread the full length of the forearm. (3) In two cases the pulse steadily deteriorated. After 12 to 24 hours it was almost imperceptible, yet repeated B.P. readings were normal.

A colleague told me of two fatal cases of Russell's viper bite which occurred in the same area. The patients were bitten on the neck and thorax respectively. In these and in Case I it was noticed that (*a*) the swelling spread steadily and widely; tissues round the punctures became discoloured. (*b*) Patients remained conscious to the last, though the wrist pulse had been imperceptible for many hours. (*c*) Death occurred in 30 to 36 hours.

Three features appear difficult to explain: (i) In Case II a vein which appeared to be thrombosed 1 hour after the bite was found half an hour later to bleed freely. (ii) The blood in Case II did not clot; yet, therapeutically, snake venom is used to aid clotting. (iii) A condition in Case IV resembling paralytic ileus.

Acton and Knowles (1921), however, state that Russell's viper venom contains three active principles—thrombase, haemorrhagin, and an unspecified proteolytic ferment. *Thrombase,* if injected into a vein, as is common in small animals, causes rapid thrombosis and death. In man this is rare. The presence of thrombase in the subcutaneous tissues causes local necrosis. *Haemorrhagin* produces lysis of the cells of the capillary walls; hence the local extravasation at the puncture sites, as seen in each of the four cases presented. This extravasation accounts for the oozing of blood from the punctures—said to be a diagnostic feature. If haemorrhagin reaches the general circulation it may cause widespread petechial haemorrhages in such organs as brain, kidneys, stomach, intestine, or lungs. Thus signs consisting of fits, depression, and paralysis of vital centres, albuminuria, haematemesis, and haemoptysis occur. Haemorrhages into the wall of the gut account for the symptoms resembling paralytic ileus in Case IV. The damage to the kidneys may account for the maintained blood pressure in two cases in spite of very poor wrist pulse, and also the large albuminous clots in the urine.

Acton and Knowles also state that the early thrombi caused by thrombase are later dissolved by the proteolytic ferment. They do not specify the agent, but say that it is known that thrombi disappear, as in Case II. This agent, acting on the fibrinogen, prevents clotting of systemic blood, as observed in Case II. Calmette (1908), the first to prepare antivenene, stresses the proteolytic action of viper venom.

Treatment

Many cases of Russell's viper bite are amenable to treatment if it is applied early enough; whereas bites of cobra and krait are very rapidly fatal. Hamilton Fairley (1934) advises immediate ligation, free incision, local venesection, and mechanical suction. Local injection of gold chloride and potassium permanganate causes necrosis, and the value of these substances is doubtful. Amputation he considers unjustifiable for Russell's viper bite (as do Acton and Knowles). In this connexion it is interesting that Himalayan tribesmen immediately cut off a digit if it is bitten by a snake. Fairley casts doubt on the efficacy of antivenene, as it is unlikely that the specific antivenene for the snake concerned is available; its potency may well have expired; and there are valueless brands on the market. Stitt (1942) recommends a total dosage of 100 to 300 c.cm. I.V. or I.M.

Transfusion of whole blood is necessary if much is lost by venesection. I cannot find any reference to the prolonged use of a venous tourniquet, but it seemed to be of value in my cases.

Summary

Four cases of Russell's viper bite are presented. The known properties of the venom are discussed.

The diagnostic symptoms and signs are: persistent pain and tenderness, oozing from the punctures, spreading swelling, and on incision a "red-currant jelly" appearance.

Modern ideas on treatment are summarized.

References

Acton, H. W., and Knowles, R. (1921). Byam and Archibald's *Practice of Medicine in the Tropics*, London.
Calmette, A. (1908). *Venoms, Venomous Animals, etc.*, London.
Fairley, N. Hamilton (1934). *Proc. roy. Soc. Med.*, **27**, 1083.
Stitt, E. R. (1942). *Tropical Diseases*, revised by R. P. Strong, Philadelphia.

BLINDNESS FOLLOWING HAEMATEMESIS

BY

JAMES BLACK, M.D., F.R.F.P.S.

Assistant Physician (Temporary), Sunderland Royal Infirmary

Though long recognized, blindness following haematemesis is rare enough to warrant publication of a further example. Gowers (1904) discussed this complication at length and reviewed the literature to that date. More recently Whiting (1929) described three cases, and Rugg-Gunn (1937–8) reported the case of a man of 47 who, after a severe haematemesis, became completely and permanently blind. Rugg-Gunn also cited a case in which the blindness was not permanent. Bamford and Barber (1940) reported the case of a man of 46 who had two haematemeses at an interval of three days; a gradual contraction of the fields of vision five days after the first bleeding heralded the development of complete and permanent blindness of both eyes. Robertson (1941) described the development of sudden and complete loss of vision in the left eye on the third day after a haematemesis; next morning there was only a glimmer of vision in the right eye. Permanent and complete blindness resulted.

There is no agreement on the pathogenesis, and the retinal appearances differ from case to case. The time and mode of onset vary, as do the degree and duration of blindness. Chevallereau (1903) stated that the blindness is more often bilateral. Fries, quoted by Gowers (1904), found that it was bilateral in 90% of cases and that the time of onset varied: 26% losing their vision at once, 19% within 12 hours, 33% between 12 hours and 18 days, and 22% thereafter. The defect of vision may be a diminution of central vision, paracentral scotomata, sector field defects, or concentric contraction of the fields of vision, while in other cases there is sudden and complete loss of sight. Once vision is lost it appears to be permanent in most instances. Coyon *et al.* (1927) state that the condition is invariably followed by complete optic atrophy. Sweet (1903), however, recorded a case in which there was slight improvement. One of Whiting's cases showed very slight recovery, and Rugg-Gunn reported recovery where the blindness had been originally complete.

The fundal appearance varies from case to case. In Rugg-Gunn's case Gowers found the disk atrophied and greyish white, the arteries narrowed, and the veins small. There was some new tissue around the vessels in the disk. He stated, however, that the ophthalmoscopic appearances in other recorded cases varied from slight to intense inflammatory change; in the most intense cases there was neuroretinitis with haemorrhages. Rugg-Gunn's case showed papilloedema of both disks and narrowing of the retinal arteries. Whiting noted pallor of the disks with blurring of the edges, small patches of exudate, but no haemorrhages.

Case Report

The case here described, that of a coal-miner aged 53, was admitted to hospital on Aug. 18, 1945, and gave the following history.

During the preceding three weeks he had suffered from lassitude, anorexia, and occasional dull epigastric pain after food. Prior to this he had experienced no digestive upset, but had occasionally seen a streak of blood in the motion. This slight bleeding he had attributed to haemorrhoids. His sight had always been good and he was not subject to headaches. On Aug. 12 he had noticed a trace of blood in his motion. On the 13th, while resting at home in a chair, he suddenly collapsed and lost consciousness for some 10 minutes. On recovering from the faint he vomited a "considerable quantity" of bright-red blood—probably more than a pint. Soon afterwards he passed a tarry motion which was followed by another haematemesis. On the evening of Aug. 15 he felt fairly comfortable and managed to glance through a newspaper. On the morning of Aug. 16 he woke to find that he was totally blind in the left eye and appreciated only hand movements with the right eye. Within a further 15 minutes the right eye also was totally blind. There was no further haemorrhage.

On admission to hospital he was completely blind in both eyes. His mental condition was clear. There was marked pallor of the skin and mucous membranes. Pulse was 80 a minute, regular, and of fair volume. There was no thickening of the radial vessels. B.P. was 135/80 and Hess's test was negative. Haemoglobin (Sahli) was 25%. There was some tenderness in the right hypochondrium but no rigidity. The liver and spleen were not enlarged. The eye movements were full. Ophthalmoscopic examination showed disks which were hyperaemic and somewhat swollen (2D). The disk margins were ill defined, the arteries markedly constricted, and the veins dilated. There was no nipping of veins. Two streaky haemorrhages were seen in the right fundus near the disk margin at 2 o'clock and 7 o'clock. A similar haemorrhage was noted at 3 o'clock near the disk margin in the left eye. No exudates were observed. The pupils were widely dilated, circular, and fixed. The spinal reflexes were sluggish. The cerebrospinal fluid was under 200 mm. pressure; there was no blood present and no cellular increase.

1¾ pints of Group O blood was administered by intravenous drip, and iron was given in full doses. Three days after admission the haemoglobin had risen to 46%. Red cells numbered 2,290,000/c.mm., white cells 3,800/c.mm., platelets 200,000/c.mm. There was anisocytosis and poikilocytosis of the red cells, and the differential white count was within normal limits. The blood urea was 29 mg./100 c.cm. Twelve days after admission the haemoglobin was 70%, 27 days after 85%, and 31 days after 89%. *X*-ray examination by barium meal 34 days after admission showed a deformity of the duodenal cap.

The patient was discharged after 38 days feeling well, with a good appetite, and without pain. He was still completely blind in both eyes. The pupils were central, circular, equal, and of moderate size, but did not react to light. There was now obvious optic atrophy, the haemorrhages had disappeared, and the arteries were still narrowed.

Discussion

Various theories have been advanced to account for the blindness. Samelsohn, quoted by Gowers (1904), considered that the nervous connexion between stomach and corpora quadrigemina afforded the best explanation, it having been noted that the disease or injury of the corpora could give rise to haematemesis. Goerlitz (1920) examined an eye pathologically 10 days after the onset of blindness following haematemesis; the main changes found were an intense oedema of the disks and oedema of the retina, these changes resembling those found in intoxication amblyopia such as is caused by methyl alcohol. Whiting (1929) favours the hypothesis that toxaemia renders the ganglion cells more sensitive to blood deprivation and that sudden death of the ganglion cells and their fibres is responsible. Fisher (1929) suggested that exudation of fluid in the nerve sheaths might be responsible. Wolff, quoted by Rugg-Gunn (1937–8), suggested that diminished oxygen supply might lead to spasm of the arterial walls and so be the cause of the blindness.

In the present case one of the most striking features was the marked contraction of the retinal arteries. And whereas a raised blood urea might have been expected the level was unusually low—viz., 29 mg./100 c.cm. Whether this low urea level is of any significance is open to discussion.

Summary

The literature on blindness following gastro-intestinal haemorrhage is briefly reviewed.

Details of a case showing this rare complication are given.

The present case gave a history of having had small repeated blood losses, possibly from haemorrhoids, before the haematemesis.

There was marked contraction of the retinal arteries.

By a wider appreciation of the existence of this unusual complication of haemorrhage and adoption of routine inspection of the fundi for early changes this catastrophe might be avoided. A blood transfusion, given early, may halt these changes and be a sight-saving measure. Once vision has gone there is little likelihood of response to any form of treatment.

References

Bamford, C. H., and Barber, H. (1940). *Lancet*, **2**, 715.
Chevallereau, A. (1903). *Arch. Ophtal.*, Paris, **23**, 417.
Coyon, A., Cerise, and Clog, W. (1927). *Bull. Soc. méd. Hôp. Paris*, **51**, 53.
Fisher, J. H. (1929). *Trans. ophthal. Soc. U.K.*, **49**, 151.
Goerlitz, M. (1920). *Klin. Mbl. Augenheilk.*, **64**, 763.
Gowers, Sir W. R. (1904). *A Manual and Atlas of Ophthalmoscopy*, 4th ed., London.
Robertson, C. K. (1941). *Edinb. med. J.*, **48**, 414.
Rugg-Gunn, A. (1937–8). *Proc. roy. Soc. Med.*, **31**, 665.
Sweet, W. M. (1903). *Trans. Amer. ophthal. Soc.*, **10**, 183.
Whiting, M. (1929). *Trans. ophthal. Soc. U.K.*, **49**, 144.

Medical Memoranda

Anaesthesia and Blood Transfusion in 14 Cases of Traumatic Aneurysm

Anaesthesia and blood transfusion for cases of aneurysm present problems to be met with only in peacetime when working in conjunction with a surgeon doing blood-vessel surgery. This military hospital has had 14 cases of aneurysm over a period of 16 weeks. The literature available reveals very little on this subject. The cases, being battle casualties, presented the textbook description of a traumatic false aneurysm, with the exception of the so-called varicose arteriovenous type. When removal of this particular type was attempted it was found to have so many ramifications that blood loss was liable to be tremendous.

All the subjects were brought to the operating theatre in good condition, the average length of time between injury and operation being approximately 4 weeks, giving the opportunity for pre-operative blood transfusions if necessary. No case was operated on until the blood pressure was within normal limits. The premedication used was morphine 1/4 gr. with hyoscine 1/100 gr., while the anaesthetic in 8 of the 14 cases was pentothal 0.5 g., N_2O, vinesthene, and oxygen, and usually but not always ether in conjunction with a (home-made) CO_2 absorber. The remaining cases were given pentothal 0.3 g. and ether through an Oxford vaporizer with the addition of oxygen. Care was always taken to give a liberal quantity of oxygen, particularly when the transfusion could not keep pace with the blood loss. The sites of the aneurysm were carotid, subclavian, brachial, popliteal, and femoral—this warranting the use of intratracheal intubation in the first four types. The average length of time of all operations was just over three hours.

It was found that planning and preparation for a sudden and tremendous loss of blood were needed in all cases, for it could never be determined beforehand which case more than another was likely to have a severe haemorrhage. Before starting any of the operations the local blood bank was asked to supply 5 pints of fresh blood ready for immediate use. As soon as the anaesthetic had reached the third stage and before beginning the operation a needle was inserted and a slow drip started. If there was only the small blood loss to be expected at any operation the transfusion was allowed to drip at 60 a minute, but the transfusion, in any minor or major loss, was ready for immediate use as a stream, even under positive pressure. In two of the cases the loss was so great that a second transfusion had to be set up in order to maintain blood volume. As more experience was gained it was decided to try autotransfusions, but in the latter cases there was no justification for the attempt. Team-work was absolutely essential—as, for example, in two cases when the supply of blood was exhausted, donors having to be called for and bled.

There were 2 deaths. The first of these occurred in a case of popliteal aneurysm four hours after operation, when the patient had recovered consciousness. The blood loss had not been heavy, and had been replaced with one pint of the same group. Unfortunately there was no necropsy. It was thought that death was due to pulmonary embolism. The second death, in a case of subclavian aneurysm, occurred on the table, after 1¾ hours' operating time, from a sudden uncontrollable haemorrhage with which no transfusion could have kept pace. Up to the time of this incident the condition of the patient had been quite satisfactory.

The following successful extreme case indicates the difficulty of the surgeon and the anaesthetist, and shows not only the amount of blood a man can lose, and have replaced, but also the amount he may need if a favourable result is to be obtained.

Illustrative Case

On the morning of Aug. 14, 1944, Major F. was operated on for a femoral aneurysm of the arteriovenous type. After 3¼ hours' operating the procedure was stopped at the request of the anaesthetist in spite of the fact that the haemorrhage was not under control. The wound was packed. The patient had been given 4½ pints of blood and half a pint of plasma. The same day, 8 hours later, his condition having improved, he was again taken to the theatre, and this time 9½ pints of blood were given with half a pint of plasma. The operation was again stopped at the request of the anaesthetist, after 4½ hours. The wound was still bleeding, and was packed as before. Five days later he was returned to the theatre, and this time the operation was successfully concluded after 4 hours and 40 minutes, the patient having received 8 pints of blood and half a pint of plasma. The plasma was used only to tide over the intervals between the obtaining of whole blood. The total operation time was 12 hours 40 minutes, while the total of transfused material was

21½ pints of blood and 1½ pints of plasma, given over a period of 6 days. One is tempted to ask if this is a record for the amount of blood given over such a short period. The anaesthetic used was pentothal 0.5 g., N_2O, and oxygen, with an absorber. The patient's condition 10 weeks after operation can be regarded as satisfactory. In the first two operations both Groups A (II) and O (IV) were used in about the proportion of 2 to 1, while in the last operation A only was given.

The patient's blood picture at the present time shows the following: R.B.C., 4,200,000; Hb, 71% (Sahli); W.B.C., 6,800 (polymorphs 59%, lymphocytes 28%, monocytes 12%, eosinophils 1%).

COMMENT

Anaesthesia for cases of aneurysm presents no unusual difficulties, but a liberal quantity of oxygen is indicated, particularly when the blood loss is heavy. Planning and preparation for a large blood loss in these cases was always necessary. Transfusion was given to all cases in order to be immediately ready for any emergency. In two cases two transfusions were set up at the same time in the one patient. With all precautions a transfusion may not be able to keep pace with blood loss.

I wish to thank Col. J. Bruce, consulting surgeon, for permission to publish this article.

I. SCHALIT, M.B., B.S.,
Major, R.A.M.C.; Recognized Specialist in Anaesthetics.

Local Penicillin in Purulent Pericarditis

The following case of acute purulent pericarditis was treated by direct infusion of penicillin in Ringer's solution after surgical drainage. Two complications—pleural effusion and infection of an inadequately removed rib cartilage—arose during treatment.

CASE REPORT

The patient is a full Samoan, aged 29, and a local resident. He was admitted on Dec. 16, 1944, with fever, pains in the head and chest for 5 days, a cough for 7 days, and an abscess on the left leg for 7 days. The abscess had been discharging for 2 days before admission. His previous history was a pleural effusion, for which he had been treated in hospital 7 years ago. The diagnosis was toxaemia, secondary to the abscess of the leg. A bacteriaemia was suspected, but no growth occurred after 5 days' incubation.

On the night of admission his temperature rose from 103.8° to 105°, but dropped the following day to 100°, thereafter fluctuating between 102° and 99° until the second day after operation. His white cell count was 12,650. He was given 2 g. of sulphapyridine on admission and 1 g. six-hourly for three days. At this time sulphadiazine was substituted, and he received a course of 33 g. in 9 days. The response was poor, and he was given 6 g. of sulphathiazole in two days without any benefit. Two weeks after admission his white cell count had risen to 18,100 and the blood cultures were still negative.

20th Day.—A pericardial rub was audible and fine rales were heard in the bases of both lungs. Intravenous penicillin was started (225,000 units in 48 hours); the temperature, pulse, and clinical condition remained unchanged.

28th Day.—Red cells, 3,600,000; Hb, 76%; C.I., 1.05. White cells, 9,800 (polymorphs 62%, lymphocytes 24%). The apex beat was now in the midaxillary line and the right border was 2 in. beyond the right sternal border at the 5th intercostal space. The neck veins were prominent, and the patient was in great respiratory distress.

32nd Day.—I was called in consultation. At this time his precordial dullness was continuous on the left from the 2nd interspace in the midclavicular line to the midaxillary line at the 6th space. The right border was at the midclavicular line in the 6th space. Heart sounds were not audible. Breath sounds were absent in the left lower chest, and coarse rales were heard throughout the remaining areas of the chest. The pericardium was aspirated through the 5th intercostal space, 30 c.cm. of blood-stained semipurulent fluid being removed. Vision was almost absent in the left eye and blurred in the right. In preparation for surgical intervention a blood examination was made, with the following results: Group O; red cells, 4,400,000; Hb, 87%; C.I., 0.98; white cells, 5,200 (polymorphs 66%, lymphocytes 18%); Schilling, left shift 3:1; sedimentation rate, 41 mm. in 1st hour; bleeding time, 3 min.; coagulation time, 4 min.; total serum protein, 7% (albumin 4.6%, globulin 2.1%); mean corpuscular haemoglobin concentration, 48%; culture sterile after 7 days' incubation.

35th Day.—I performed a pericardiotomy, using local analgesia, through a linear incision centred over the 5th and 6th rib cartilages. Two inches of the rib cartilages was removed. The intercostal bundles were incised in the line of the incision and sutured to the deep fascia. Two tie sutures were inserted into the pericardium and the incision made between. There was an immediate burst of effusion, projected 12 ft. Using the tie sutures to open and shut the incision, gradual decompression was effected. Two and a half pints of effusion was expressed by heart action. The tie sutures were then united to the skin to ensure patency. 20 c.cm. of penicillin (1,000 units per c.cm. in Ringer's) was instilled into the sac with a Dakin syringe, and a vaselined gauze dressing laid on the wound. The blood pressure at the start of the operation was 94/54; no appreciable change occurred during the operation. 500 c.cm. of whole blood was given during the procedure, followed by 1 litre of 5% glucose-saline at 36 drops a minute. B.P. readings were taken at 15-minute intervals for the next 8 hours, being uncertain of the origin of the blood in the effusion. The maximum reading was 138/80, and the minimum 94/50; after 6 hours it became constant at 108/62. The pulse during this time was a maximum of 134 and a minimum of 100 a minute. The effusion gave a heavy culture of pure *Staph. aureus*, sensitive to penicillin *in vitro* (38 mm. zone of inhibition).

Conspicuous relief of cardiac and respiratory distress was apparent 4 hours after operation. Twice-daily dressings were done, 10 c.cm. of the same concentration of penicillin being instilled each time, for five days.

2nd Post-operative Day.—Sulphadiazine was begun because of our limited supply of penicillin, a course of 24 g. being given in 13 days. From this time onwards the temperature fluctuated between 97 and 98.8° until March 18.

8th Post-operative Day.—B.P., 102/68; pulse, 90; respiration rate, 22. The apex beat was 4½ in. from the midline in the 5th intercostal space, all heart sounds clearly audible but still faint; moist sounds were heard in the pericardium. Blood examination showed: Red celis, 4,800,000; Hb, 90%; C.I., 0.92; sedimentation rate, 21 mm.; white cells, 6,500 (polymorphs 53%, lymphocytes 38%); Schilling, right shift 8:11.

By the 17th post-operative day the sinus had closed spontaneously, but some discomfort was felt. The sinus was opened, releasing about 30 c.cm. of penicillin-stained serous fluid with no active units. On the 19th post-operative day 10 c.cm. of similar fluid was aspirated: a guinea-pig test revealed nothing pathological. By the 21st post-operative day (Feb. 10) the precordial sinus had closed, and the patient progressed satisfactorily until the 45th post-operative day (March 5), when the wound became tender. On the 50th post-operative day (March 10) it broke down, and a semi-purulent discharge began. Four days later 1 pint of fluid, similar to that previously evacuated, was removed. Some pain and embarrassment were felt and aspiration was discontinued. On March 21 (61st post-operative day) gentle curettage was performed. On April 16 the patient was discharged to the out-patient department with a draining sinus. Two weeks later he was readmitted for removal of an infected cartilaginous tip of the 5th rib. By May 22 the wound had healed and the patient was discharged. The heart was then within normal limits and the chest clear and resonant throughout; B.P. 112/78. Eyes: both fundi clear; fields normal; left eye 6/12, right eye 6/18, Snellen.

There is as yet no clinical evidence of any pericardial adhesions, which will perhaps be found later, and I anticipate the follow-up with interest. The normal base-line temperature of Samoans is 97° F.

Apia, Western Samoa. MARSHALL M. GOWLAND, M.D., C.M.

A Very Large Granulosa-cell Tumour of the Ovary

The following case is of interest because of the unusually large size of the tumour.

CASE HISTORY

The patient, a woman of the Hausa tribe of Northern Nigeria, aged 35, was first seen in Sept., 1944, when she complained of gross enlargement of the abdomen. Two years and ten months previously she began to suffer from continuous uterine bleeding, with the passage of clots of blood. This lasted for ten months, and was followed by complete amenorrhoea for the two years up to the date of examination. The enlargement of the abdomen began two years ago and gradually increased throughout this time. Menstruation was normal before the onset of the condition. The patient was married at about 14 years of age (as is the practice of the Hausa people), and had three live children, the last 16 years old, and a miscarriage ten years ago. Since then she has had no further pregnancy.

On examination the patient was seen to be a thin woman with an abdomen larger than the average full-term pregnancy. The swelling was not uniform, but was more prominent in the hypogastrium and left iliac fossa. Per vaginam the lower pole of the tumour was felt through the posterior fornix. The position of the uterus could not be properly defined.

On Sept. 8, 1944, laparotomy was performed under open ether anaesthesia. The tumour was found to arise from the right ovary, and had a well-defined pedicle. Numerous omental adhesions were divided, the pedicle ligated and divided, and the tumour removed. The uterus was of normal size; the left ovary was atrophied as in a patient after the menopause. The abdomen was closed and the patient was given glucose-saline per rectum. Her recovery was straightforward. The tumour was found to weigh 20 lb. The greater part of it was solid—in some places necrotic. There was a cystic part about 6 in. across. Portions from the solid part of the tumour and from the wall of the cyst were examined microscopically by Dr. G. W. St. C. Ramsay, acting senior pathologist at the Medical Research Institute, Yaba, Nigeria, and he reported as follows.

"The specimen is a granulosa-cell tumour of the ovary. In the cystic part the tumour assumes a papillary form; elsewhere it is composed of solid masses of polyhedral cells with vesicular nuclei divided up by strands of rather hyaline connective tissue. The size of the tumour may possibly be a record. Ewing quotes one case weighing 10½ lb., or just about half the weight of this specimen."

The patient was seen again about three months after the operation and was then in good health.

I am greatly indebted to Dr. Ramsay for his report and for photomicrographs he prepared from the sections of the tumour.

Zaria, Northern Nigeria. H. A. KELSEY, M.B., B.S.,
In charge of the Church Missionary Society Hospital.

Reviews

MEDICAL USES OF SOAP

Medical Uses of Soap: A Symposium. Edited by Morris Fishbein. (Pp. 182; illustrated. 18s.) London: J. B. Lippincott Company. 1945.

The skin is subjected to the action of soap more often than to that of any other definite chemical substance, and it is rather surprising, in view of its importance in cutaneous hygiene, that no authoritative publication on the medical uses of soap has hitherto appeared. The present volume will fill a gap. What is soap? If it is to be defined as a chemical compound, soap is any salt of those fatty acids that contain eight or more carbon atoms; but many of these salts do not possess the detergent qualities which characterize soap in the mind of the man in the street. On the other hand, there have lately been developed a number of substances which resemble soap in their detergent action but which do not conform to the chemical definition set out above. They are known as "surface active" agents. Among them are sulphated oils and sulphated alcohols and esters—these have been only recently introduced into commerce, but are becoming serious rivals of the orthodox chemical soaps. They have an importance in medicine, for, as is well known, many skins are sensitive to ordinary soap, and the new detergents do not irritate the skin in the same way that soap irritates it because they are non-alkaline, though of course they may irritate the skin in some other way. Up to now very few reports have been published of dermatosis resulting from their use. It appears, therefore, that these detergents have advantages for patients with very sensitive skins.

It is a curious thing to remember that soap as we know it is quite a modern invention. Although the word "soap" has been known since classical times, it seems that the Latin word *sapo* from which the modern English word is derived was not a detergent at all but something rather in the nature of a scent or perhaps a deodorant. The soaps made from the alkaline salts of the fatty acids (of which oleic acid, stearic acid, and palmitic acid are still the most generally used varieties) are a comparatively modern invention, and their commercial manufacture dates from the early days of the nineteenth century, while the marvellous developments and infinite specialization of different kinds of soap to suit special needs have been chiefly evolved during the last seventy or eighty years.

In the volume before us all the points of contact between medicine and the soap industry are thoroughly dealt with. There is a good summary of soap technology and the effects of soap on the normal skin and the diseased skin, of the evils that may result from its injudicious or excessive use, and of its contraindications. There are two sections which may be particularly commended to the study of dermatologists: one is on the effects of soap on the hair, and the other is on soap for shaving. Much of the article on "Soap for Shaving," by Dr. Hollander, is interesting because it supplies scientific reasons for everyday practice. It has long been known that thorough lathering of the face greatly facilitates shaving, and Dr. Hollander describes experiments which show that soap solution actually softens the hair to such an extent that, whereas dry hair is hardly stretchable at all, full saturation with water allows it to be stretched by as much as 50% of its original length. In accordance with current practice among those who shave—that is, practically the whole adult male population of civilized countries—his experiments also show that hot water and soap solution gives the best results. In one point only does he differ from the opinions of most people who practise the art of shaving, and that is when he says that a "dull" razor causes less trauma to the skin than a very sharp one; and that is a surprising conclusion. There is one precaution which he might have mentioned in dealing with tender skins, and that is the advisability of going not more than once over the surface to be shaved and dispensing with a really close shave, which can only be obtained by going over twice.

It is not possible to give an abstract of this interesting book within the limits of a short review, but we do recommend it cordially, not only to the medical and nursing professions at large, but also to trichologists and practitioners of the cosmetic arts. There are numerous apposite and well-reproduced illustrations.

BEVERIDGE REPORT AND WHITE PAPER

Britain's Way to Social Security. By François Lafitte. (Pp. 110. 6s.) London: Pilot Press. 1945.

The Beveridge literature continues to grow, and any contribution to it which deals with it from a fresh point of view can be welcomed. This book is by a firm believer in the Beveridge plan, and he has thought it useful to make an objective comparison of the Beveridge report with the modifications of the White Paper.

The main part of the book seems to have been written before the General Election. The author is, however, not disturbed by the new developments, because he believes that the electors wanted "social security" whichever side won. He does not hesitate to say sometimes that the proposals of the White Paper are better than those of the report, but believes that those of the White Paper are, generally speaking, less favourable to the citizen than the original ones. The value of the book is greatly enhanced by a section which gives a concise and very clear story of the inception and reception of the report, preceded by the record of the forty years of social welfare which have led to a general belief that people should be saved from the necessity of applying for charity, either private or public. He gives reasons for thinking that we can afford social security. He estimates that, at the most, the country is being asked to set aside an additional part of the national income which will amount, roughly, to the goods and services produced by a half-day's work every three weeks. This estimate should be modified favourably because the new benefits will reduce private spending on doctors' bills, funeral expenses, dentists, etc. He quotes an authority who estimates that if all taxes were suitably adjusted an income tax of 5s. 10d. would fulfil the national needs, as against a pre-war tax of 5s. 6d.

Where the White Paper suggests lower benefits than the Beveridge report he says that this would simply result in more applications for public assistance, and any social security plan worth the name should greatly reduce the need for public assistance. If the State wishes to encourage parenthood it must materially increase the maternity benefits and children's allowances, which he pleads should not be subject to income tax. He comes to the conclusion that there can be no excuse for delaying the introduction of the full plan later than two years after D-Day.

In the only mention of the medical service (on page 106) Mr. Lafitte says that the working of the whole system "would be seriously clogged unless the most vigorous action was taken to build a far better system of health and medical services available to every citizen without fee . . . a system which tolerated no class distinctions . . . and provided for the most rapid extension of hospital, specialist, and medico-social services, and for the raising of general practice to a new level of well-equipped competence by the development of Health Centres." He accuses the late Minister of Health of abandoning many of the most hopeful advances promised in the White Paper "rather than quarrel openly with an obstructionist section of the medical profession, the voluntary hospitals, and the local authorities who thought private trading in medical care, separatism, or parochial prestige more important than the public health." Mr. Lafitte does not attempt to expand this. If he tried to do so, judging from the well-balanced nature of the rest of his book, he would probably have found that the "obstructionist section of the medical profession" could show a pretty good case that in looking after the interests of the profession it had not abandoned its plea for a complete medical service for all who need it, which it had vainly pressed on the attention of the Government years before Sir William Beveridge came on the scene.

APPLIED PHYSIOLOGY

Applied Physiology. By Samson Wright, M.D., F.R.C.P. Eighth edition. Oxford Medical Publications. (Pp. 944; illustrated. 30s.) London: Oxford University Press. 1945.

Prof. Samson Wright is to be congratulated on having produced an eighth edition of his *Applied Physiology* and on having kept it below 1,000 pages. The labour and compression this has required are illustrated by the fact that the *Annual Review of Physiology* for the year 1945 alone comprises 774 pages. "Samson Wright" has become an institution, not merely

because it is a good examination textbook, but also because it really is useful to the practising clinician who wishes to understand the mechanism of a particular symptom or disorder. If a criticism may be ventured about so popular a book at this late date, it is as follows: Prof. Samson Wright, like others who discuss the physiological interpretation of symptoms, tells us a great deal about the body in health and in advanced organic disease, but very little about the physiology of the everyday ailments of mankind. The commonest illnesses to-day are upper respiratory infections, rheumatism, and neurosis; but the words nose, joint, and neurosis do not appear in the index of this book. More space is given to the ductless glands than to the whole of the alimentary tract, and in consequence useful conceptions such as the peristaltic gradient and the reverse peristalsis syndrome are not mentioned. Clinical teachers are constantly being urged to tell the student about common diseases and about social medicine, and if their teaching is to have a physiological background the applied physiologist must interest himself more in the common disturbances of the environment and the common diseases.

Notes on Books

Recent Advances in the Chemistry and Biology of Sea Water, by Dr. H. W. HARVEY, summarizes the results of the more recent acquisitions of knowledge relating to the constituents of sea water, with special reference to the nutrition of marine growths. The introductory chapter enumerates the agencies by which the dissolved constituents of sea water are transported, and describes the manner in which these agencies operate. Then follow nine chapters detailing chiefly the findings from the examinations made of the constituents of sea water at different places and at different depths, and the variation of these constituents with varying geographical conditions. Apart from the main constituents of sea water there are elements present in minute traces, some thirty of which have been examined as to their amount. Many of these so-called trace elements exercise a vital function in marine growths. The book contains a valuable discussion of the carbon dioxide system in its relation to alkalinity under different conditions of pressure and other variables. It describes the comparative utilization of nitrogen and phosphorus by plant organisms, and the changes due to bacteria under the influence of light and darkness. These and many other results of research derived from the oceans and from the narrow seas render the book unique and invaluable to all who are concerned with any section of marine biology. The bibliographic references are as exhaustive as they can be made, and give to the book a key position in the literature on the subject. It is published at 10s. 6d. by the Cambridge University Press.

Atmospheric Pollution in Leicester: A Scientific Survey is published for the Department of Scientific and Industrial Research at 3s. by H.M. Stationery Office. During the last twenty-five years a large amount of information has been collected about atmospheric pollution at a few fixed points in each of a number of large towns. This information has been of use in many ways, particularly in indicating whether, over a period of years, the air is generally becoming cleaner or more polluted. But until the observations described in this report were made no one could say with any certainty what were equivalent positions for the measuring instruments or what sort of variations in pollution were to be expected over comparatively short distances within a town. The results at Leicester show that atmospheric turbulence, by carrying down clean air from above and carrying up smoke-laden air from street level, is the most important agent in preventing the accumulation of dirt in the air of our towns and cities. In a short preface the Atmospheric Pollution Research Committee of the Department pays tribute to the way in which Dr. A. R. Meetham and his two assistants carried out this research. The work of the Leicester survey, though partly theoretical, is already having practical consequences.

By the courtesy of the American Library in London we are presented with a copy of a *Symposium on Neuropsychiatric Diseases* reprinted from the *Medical Clinics of North America,* Chicago number (Philadelphia and London: W. B. Saunders Company). This is an unusually interesting collection of papers covering many of the chief subjects of interest to present-day neurologists and psychiatrists. Among the neurological papers are useful discussions on the Guillain-Barré syndrome, the diagnosis and surgical treatment of peripheral nerve injuries, chordotomy for intractable pain, protrusion of the intervertebral disk, and an admirable review of the management of myasthenia gravis including a note on the employment of thymectomy. A paper on periarteritis nodosa suggests that this very interesting disease may be rather more common than hitherto supposed, and that it should always be kept in mind in face of an illness presenting multiple symptomatology, including involvement of the nervous system both central and peripheral. Psychiatric papers deal with the modern concept of schizophrenia, electric shock therapy, insomnia, and the relation of insanity to crime. Other papers on the uses and abuses of quinidine, pernicious anaemia, and the rational endocrine therapy of menstrual disorders will repay study.

Preparations and Appliances

A SUPPORT FOR ANAESTHETIC TUBING

Dr. O. R. Tisdall, honorary anaesthetist, Harrow Hospital, writes:

The corrugated tubes of the Coxeter-Mushin apparatus exert a considerable pull on the face-piece. As it is essential to maintain an air-tight fit in absorption technique, it is evident that this pull should be eliminated if possible.

The apparatus illustrated is practically a retort-stand modified for its purpose, and consists of a clamp which can be fixed

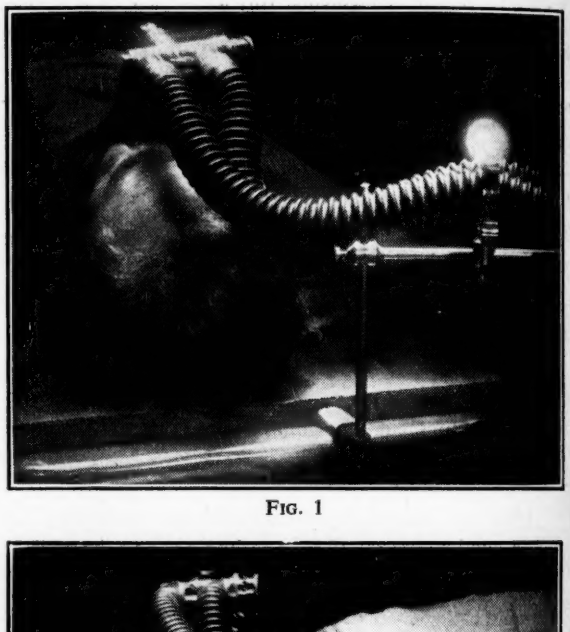


FIG. 1

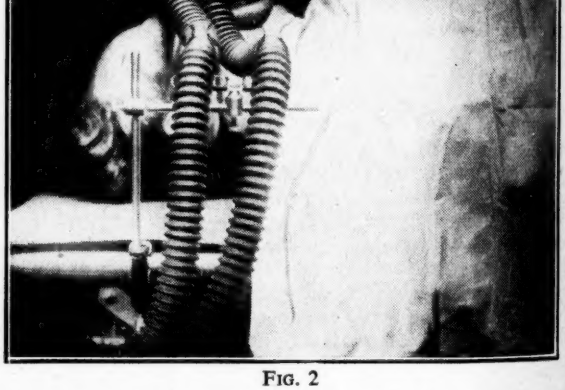


FIG. 2

to any edge of the operating table, an upright arm, and a horizontal bar which can be revolved to any desired angle and moved to any height. On this is a bar which can be revolved as required, each bar being fixed by a milled-head screw. On the second bar are fixed two clips to carry the tubing. In practice it is found that this will allow of almost any adjustment, and will carry nearly all the weight of the tubing.

The model has been kindly made for me by Mr. Dean, of Harrow School Science Laboratories, who is prepared to make a similar model to fit any table.

BRITISH MEDICAL JOURNAL
LONDON
SATURDAY DECEMBER 29 1945

ELECTROMYOGRAPHY

Severe and sometimes permanent disability results from a peripheral nerve injury, often quite out of proportion to the amount of tissue damaged. Such injuries are particularly noticeable in war, and thus much attention has been given in the last few years to the solution of some of the theoretical and practical problems related to them. Cajal,[1] and more recently Young[2] and Bowden and Gutmann,[3] have shown clearly that the very nature of nerve regeneration is such that complete functional recovery never occurs after total interruption of a nerve. Thus, since recovery from a peripheral nerve interruption must always, in varying degree, fall short of perfection, it is imperative that the exact extent of the lesion should be determined without delay and rational treatment carried out at the optimum time.

Many "diagnostic aids" are already used in connexion with peripheral nerve injuries. The sweating test developed by Guttmann[4] gives valuable information about the functional activity of vasomotor nerve fibres. These fibres, incidentally, travel to their destination in company with the cutaneous nerves, and are therefore involved in any lesion of these nerves. The test can thus give indirect information as to the functional activity of the cutaneous nerves, and is particularly valuable because it is an objective test and does not depend on subjective sensations. Testing the "electrical reactions" of muscles, introduced by Erb,[5] is another useful aid when dealing with motor nerves, but this test depends upon induced activity by external stimuli, and cannot be applied satisfactorily in the case of single "deep" muscles. There have certainly been improvements in technique recently. For instance, Ritchie[6] has devised a stimulator for the routine determination of strength–duration–excitability curves of normal, denervated, and reinnervated muscles, based on the classical galvanic-faradic test. Precise assessment is made possible by stimulating the muscle with a condenser discharge of known voltage, duration, and frequency, these being variable and inconstant with a faradic current. A progressive improvement of excitability is demonstrated during reinnervation, the improvement appearing a short time before the earliest signs of recovery can be detected clinically. This test is a great improvement on previous ones of this nature, but it cannot be used to detect minimal degrees of denervation; and the accurate assessment of denervation or reinnervation in "deep" muscles is still difficult, and in many cases impossible.

[1] *Degeneration and Regeneration of the Nervous System*, Oxford University Press, 1928, London.
[2] *Physiol. Rev.*, 1942, **22**, 318.
[3] *Brain*, 1944, **67**, 273.
[4] *J. Neurol. Psychiat.*, 1940, **3**, 197.
[5] *Dtsch. Arch. klin. Med.*, 1868, **4**, 535.
[6] *Brain*, 1944, **67**, 314.

The possible value in diagnosis of recording the spontaneous electrical activity of muscles as a whole by means of electrodes either fixed to the overlying skin or inserted directly into the muscles was first reported by Adrian.[7] The work of Denny-Brown and Pennybacker[8] on the electrical activity of denervated muscles was the next notable advance, but it was Weddell and his co-workers[9 10] who, after extensive investigations of the electrical activity of normal, denervated, and reinnervated muscle, made possible the use of electromyography as a straightforward clinical test. Electromyography is fundamentally different from the electrical reaction test, for it records spontaneous activity as opposed to activity induced by external stimulation. The principles involved are simple, but to understand them one must have a clear idea of the nerve–muscle complex. This is fractionated functionally, not to the ultimate limit of individual muscle fibres but to groups of muscle fibres innervated by one motor neurone, the so-called motor unit. Each of these motor units when activated gives rise to an electrical response which has well-defined properties. However, when the nerve–muscle complex is disorganized by denervation, the muscle fibres which previously contracted in groups now contract individually, and can be seen as scattered intermittent contractions of isolated fibres—a phenomenon termed fibrillation (not to be confused with fasciculation). The electrical activity of these muscle fibres contracting independently of each other can be sharply distinguished from that produced by motor-unit activity. The apparatus for detecting the electrical activity of muscle is robust, simple to use clinically, and all-mains driven. It consists of a co-axial needle electrode connected to an amplifier, a loud-speaker, and a cathode-ray oscilloscope. The latter is employed solely for making permanent records, the differences in frequency and form of action potentials being more easily distinguished by the ear than by the eye. The apparatus also includes a device for passing stimuli down the electrode to the point from which recordings are being made: thus the position of the point of the needle can be determined precisely by observing which muscle contracts.

With the aid of the electromyogram the following general facts have been established. No electrical activity can be recorded from voluntary muscle which is completely relaxed. Motor-unit action potentials appear in response to voluntary or reflex contraction, and on insertion of the electrode into the normally innervated muscle (mechanical stimulation). The sounds evoked from the loud-speaker by these action potentials are rather low-pitched, producing a distinct "plop." In sharp contrast, denervated voluntary muscles give rise to repetitive action potentials provided the muscles are at approximately blood temperature. These repetitive fibrillation action potentials are of two types: those evoked by insertion of the needle electrode due to mechanical stimulation, and those which repeat rhythmically. The latter evoke a characteristic sharp click from the loud-speaker, and the repetitive quality is very noticeable. The time–course of fibrillation activity in man has been

[7] *Lancet*, 1925, **1**, 1229 and 1282.
[8] *Brain*, 1938, **61**, 311.
[9] *Lancet*, 1943, **1**, 236.
[10] *Brain*, 1944, **67**, 178.

found to be longer than in experimental animals. Thus, in the limb muscles the onset is from the sixteenth to the eighteenth day, in the facial muscles from the twelfth to the fourteenth day, and in the sacrospinalis muscles from the tenth to the twelfth day. Such action potentials can be obtained from denervated muscles as late as eighteen years from the date of injury. They can also be obtained from partially denervated muscles. The difference in time-course has been proved experimentally to depend upon a metabolic factor. Another important point which should receive emphasis is that in denervated muscles which have received adequate physiotherapy, as judged clinically, fibrillation is vigorous, whereas in untreated denervated muscles fibrillation is feeble; and in fact on occasions no *spontaneous* fibrillation action potentials can be obtained before warming the limb. In cases of reversible ischaemic block, as in Bell's palsy, motor-unit action potentials are always obtained on insertion of the electrode, and it is usual to find a few repetitive motor-unit action potentials which may or may not be under voluntary control. Fibrillation action potentials, however, are absent or very few in number. Action potentials from reinnervated muscles are characteristic and usually highly polyphasic, particularly when reinnervation follows suture of an interrupted nerve.

Electromyography, therefore, can be used in addition to the familiar electrical reactions. It has a number of advantages, among which is the detection of minimal degrees of lower motor neurone denervation. In addition, it is possible to record the electrical activity in denervated muscles, such as those of the larynx, in which the study of electrical reactions is out of the question, and it is of some interest to note that in a case labelled "recurrent laryngeal palsy of unknown aetiology" the diagnosis of arthritis of the crico-arytenoid joint was established by recording action potentials. Weddell and his colleagues do not suggest that electromyography should replace the determination of the electrical reactions by stimulation, but that electromyography is a more delicate method for gauging damage to the lower motor neurone, and is therefore valuable for the accurate assessment of peripheral nerve injuries and in the early stages of diseases affecting the lower motor neurone. Moreover, the detection of fibrillation action potentials is a positive proof of denervation, which is not possible to obtain with other methods. In a section on muscle tone in relation to motor-unit activity as determined with co-axial needle electrodes Weddell and his colleagues confirm that in a completely relaxed muscle no electrical activity can be recorded by the apparatus employed, and suggest that there is no close relation between muscle tone "determined by the resistance experienced when a limb is moved or displaced passively" and the *motor-unit* activity within a muscle. It is true that co-axial needle electrodes are not ideal for the assessment of "muscle tone"; these workers have themselves proved that their useful recording range is limited to a centimetre or so of muscle surrounding the needle-point, and that the fascial sheath of a muscle insulates the electrode from the electrical activity of surrounding muscles. Nevertheless, they are in general agreement with the findings of Hoefer,[11] using surface electrodes, and it seems certain they are correct in their statement.

Weddell and his colleagues give numerous case records illustrating the use of electromyography in many neurological affections—such as facial nerve paralysis, intrinsic laryngeal muscle paralysis, spinal cord injuries and diseases, and sciatica. They have also shown that in the early stages of "motor neurone" disease the electromyographic picture of repetitive motor-unit action potentials uninfluenced by voluntary contraction differs only in degree from that induced by prostigmin in normal muscle. In both cases the action potentials have been proved to originate at the myoneural junction. Repetitive motor-unit action potentials of a similar type, though in minimal numbers, are seen in slowly progressive peripheral nerve lesions resulting from ischaemia. They also appear in so-called "rheumatic nodules." In the latter the pain and spasm are abolished by infiltration of a local analgesic. As a result of these observations it is probable that there is a stage in the course of degeneration of a peripheral motor neurone at which the threshold at the myoneural junction becomes greatly decreased, so that spontaneous contractions occur. This suggests that spontaneous impulses may arise from sensory receptors in cases of slowly progressive degeneration of sensory nerves, though at the moment there is no proof of this. To summarize, it seems clear that electromyography can now be considered as a useful "clinical aid," and that in the field of academic and clinical research it has yet a part to play.

MASS OBSERVATION AND THE BIRTH RATE

The Advertising Service Guild report on Britain and her birth rate[12] is a document which medical men should read carefully, even those who are not very much interested in the dangers of "race suicide." Because of the general interest of the undertaking we shall speak first of the method. The investigators seek to discover what people think or believe about social problems; in the particular case what they think or believe about rearing families, what they themselves mean to do under present conditions, what they would do if conditions changed. We do not intend to overload this article with figures, but, to give some notion of the scope, we mention that of the women interviewed 222 had had a secondary and 565 only an elementary education, that 317 had been married not more than five years, 132 five to ten years, and 288 more than ten years. For the most part the study relates to London.

It is obvious that the value of the results depends on (1) the number of observations, and (2) the skill of the interviewers. When the skill of the interviewer is great then only (1) is involved, and the ordinary tests of statistical "significance" apply; but if the interviewer is unskilful an arithmetical test may greatly understate the precision of his finding. In the "classical" scheme of dice-throwing or drawing counters from a bag the variance *npq* assumes that the experimenter correctly records the number of pips

[11] *Arch. Neurol. Psychiat.*, Chicago, 1941, **46**, 947.
[12] *Britain and Her Birth-Rate*. Published for the Advertising Service Guild by John Murray, 1945, price 21s.

on the dice or the colours of the counters; if owing to bad light or fatigue he is liable to make mistakes the variance will be larger, even if his errors of observation are uncorrelated and random—namely, if, on the average of many trials, he does find *np* for the mean value. We do not know how "Mass Observation" chooses and standardizes its interviewers, but we have no reason to doubt that a suitable technique has been developed. There is, however, one point to be mentioned. Examiners can be standardized by asking them to mark independently the same script, and we know that, even with experienced examiners, the variation is sometimes disconcerting. But at least the script does not change, though the mood of the examiner does, as re-markings sometimes show. But when the scripts are human beings interviewed at different times and in different moods there may be variation; if A's results differ from B's "significantly" it does not inevitably follow that A is the better (or worse) interviewer.

We pass to the results of the inquiry. In the first place it is clear that the "population" of which this selection is typical is not replacing itself, and almost equally clear that if the aspirations of the wives were fulfilled it still would not replace itself. There is no need to go into arithmetical detail, because what is called the factual inquiry will be carried out on a much larger scale by official or semi-official bodies. It is also made probable that the birth rate among badly educated and ill-informed people is higher than among the better-educated. The authors write:

"Is the sad truth to-day that children are distributed in inverse ratio to knowledge and the ability and desire to assimilate facts? Have we to rely on the improvident and the wishful-thinking for the perpetuation of the race? The question marks must remain. But it is difficult to find any other interpretation which fits all the contradictions which this survey brings to light. The people who are having most children are mainly the people who care least how many children they have, or, at best, are least capable of finding and using means of preventing them. There is no reason to suppose that legislation will alter this pattern fundamentally. It may well accentuate present trends. If it is desirable to perpetuate the 'don't knows' and the 'don't cares' and the 'can't thinks' while the others gradually become extinct, well and good. Let's get ahead with numbers, and to hell with eugenics.

"But if we want quality as well as quantity, then the aim must be to stimulate the desire for more children where the desire and ability to limit families is most firmly established. Minds are made up most firmly at present where legislative possibilities are least likely to provide a stimulus. Babies bought on the cheap—or even at cost price—will come primarily from those to whom a little extra means a lot, whether they are bought for cash, goods, services, gardens, pièches, or living space. If legislation can appreciably raise the birth rate by itself, it seems likely to raise it most where it is already highest."

Some older readers of this vivid passage will murmur—"Karl Pearson." His style was vivid, if in a slightly different way. Some younger readers will whole-heartedly accept the last sentence of the first paragraph. It is a matter of ideology. An editorial article should be impartial, but, being written by a human being, an unconscious ideological bias is hard to escape. We think that a majority of scientifically educated persons now believe that both Galton and Pearson underestimated the importance of social and familial tradition, as well as other environmental factors, in the production of effective ability in families; we are sure most men believe that an immense amount of ability in the "lower classes" has been stifled by unfavourable environment and that, here particularly, Karl Pearson rather than Galton over-emphasized Nature, perhaps made a false antithesis of Nature and nurture. A favourite analogy of his—that no grindstone can put a fine edge on poor-quality steel—is not really illuminating. But perhaps a majority of biologists still think that Nature (in the Pearsonian sense) is a fundamentally important factor of racial progress, or deterioration, so the passage quoted above merits study.

It would be foolish to pretend that the results of this inquiry give any basis for optimism. This, however, can be said: that few of those interviewed seem to expect the rapid building of a New Jerusalem, so that a sense of frustration may be less widespread than in the years following 1918, particularly as there are no indications of a mirage.

ROLE OF ALLERGY IN DELAYED WOUND-HEALING

The war has stimulated much research into the biological processes involved in tissue repair, particularly into the causes of delayed healing of wounds. The importance of a high protein diet after the initial katabolic phase is now well recognized, and has lately been stressed again in two reviews by Cuthbertson,[1 2] to whom we are indebted for much of our knowledge of the role of protein and amino-acids in wound repair. Hunt[3] and Bourne[4] have shown that a diet poor in ascorbic acid results in deficient formation of collagen, with lack of tensile strength in skin wounds; and hypovitaminosis C may without doubt be a considerable factor in the delayed healing of wounds. In a small percentage of abdominal wounds actual disruption occurs, and although in most cases the cause may be fairly ascribed to faulty surgical technique, increased abdominal tension, or gross sepsis, there remain a number of instances where none of these factors appears to operate, and in which the protein and vitamin-C levels are well maintained; nevertheless the wound breaks down or heals poorly. To explain this group of cases allergy to catgut has from time to time been put forward as a possible causative factor, and many experimental studies have been made, hitherto with conflicting results.

The subject has been lately reinvestigated in America by Hopps,[5] who shows that, while hypersensitivity to catgut can be produced in rabbits and guinea-pigs, a large amount of this substance must be used over a long period to achieve it: for example, while 700 mg. of powdered catgut administered over one and a half months failed to stimulate the production of humoral antibodies to it, 1,700 mg. given over a six-months period was able to do so. As the latter amount represents a 915-cm. length of size No. 0 plain catgut, it is obvious that the production of a state of allergy requires much perseverance. Furthermore, Hopps found that there was no appreciable difference between normal rabbits and rabbits sensitized to catgut in the rate of dissolution or digestion of catgut during the critical period of healing of wounds, and that catgut-sutured wounds in

1 *Brit. med. Bull.*, 1944, **2**, 207.
2 Ibid., 1945, **3**, 96.
3 *Brit. J. Surg.*, 1941, **28**, 436.
4 *Lancet*, 1944, **1**, 688.
5 *Arch. Surg.*, 1944, **48**, 438.

sensitized rabbits showed no tendency to disruption or delayed healing. These negative findings he attributes to the relative insolubility of catgut sutures, and suggests that in cases where accelerated solution of sutures leads to disruption of wounds some cause other than allergy (e.g., an inflammatory exudate) must be looked for.

Having dismissed sensitivity to catgut as a significant factor in wound-disruption, Hopps postulates a local antigen–antibody reaction within the tissues of the healing wound to explain delayed healing and disruption in cases in which no other obvious cause is in evidence. To confirm this hypothesis he made laparotomy wounds in normal rabbits and in rabbits sensitized to horse serum or crystalline egg albumen. After operation the majority of the sensitized animals were given specific antigen intravenously, the remainder receiving foreign protein other than that to which they had been rendered hypersensitive, while the normal animals received either of the two proteins used in the experiment; by the use of this double control any non-specific effect of the introduction of foreign protein could be determined.

The results were quite striking. Twelve (50%) of the sensitized rabbits receiving specific antigen died of anaphylactic shock. All except one of the remainder of this group exhibited some disturbance of healing, varying from frank separation of the wound layers to local induration, oedema, hyperaemia, and sero-sanguineous exudation. Of the control animals only two showed slight separation of the skin layer over a portion of the wound, and neither in these nor in the other controls was there any significant degree of oedema, hyperaemia, or sero-sanguineous discharge. In the histological examination of biopsy specimens taken from the wounds nine days after operation it was observed that in the case of the sensitized animals which had received specific antigen the reticulum was finer and sparser and there was much less collagen than was found in control animals. But the most significant difference was in the types of "inflammatory" cells present, the ratio of macrophages to fibroblasts being considerably greater in the former group of animals; in some fields directly in the line of incision not a single fibroblast could be seen, though macrophages were abundant. Hopps considers that this failure of the macrophages to mature into fibroblasts is sufficient to account for the structural weakness and consequent disruption of the wounds. But what accounts for the failure of maturation? He suggests that, just as there is concentration of vital dyes at the site of acute "inflammatory" processes, so protein substances (in this case the specific antigens) are actively concentrated in the area of the operation wound, and the local macrophages are stimulated to produce antibodies. "Apparently the incentive to remain macrophages and form antibodies is stronger than the incentive to mature into fibroblasts and form collagen as a process of the healing of wounds."

Hopps admits that the clinical significance of this mechanism is probably not great, but suggests that it may occur when an abdominal operation is done in the face of a well-localized pre-existing infection (e.g., a pelvic abscess), where the patient may be assumed to have a high degree of sensitivity to the specific infectious agent. In such cases operative manipulation of the localized lesion may result in the forcing of bacterial products through the protective granulation tissue into the general circulation; these antigens then concentrate at the site of the operation wound, and stimulate the local macrophages to manufacture antibodies, thus causing delayed fibroplasia and disruption of the wound. Hopps emphasizes the need for thorough reinforcement of such abdominal wounds with non-absorbable sutures and abdominal binders to maintain their mechanical strength longer than is usually necessary.

PASTEURIZATION OF MILK IN ADELAIDE

At a time when profound dissatisfaction is being expressed by medical men in this country over the failure of the Government to realize the hopes raised by Lord Woolton three years ago it is comforting to know that we are not alone in our endeavours to obtain a cleaner and safer milk supply. In an address delivered before the South Australian Division of the Australian Society of Dairy Technology early in this year Dr. A. R. Southwood,[1] chairman of the Central Board of Health of South Australia, makes it clear that the quality of the milk supply in Adelaide, as in other large towns, leaves much to be desired. Dr. Southwood wastes no time in invective: he goes straight to the problem of how to put things right. In his "fourteen points for a peacetime plan" he outlines a series of proposals which, if adopted, would go a long way towards putting milk on the same satisfactory footing in Adelaide as water and meat. He believes—and with this belief we heartily agree—that the milk problem must be treated as a whole. To ensure this he proposes the establishment in each city of a board of control called the Metropolitan Milk Board. This would consist of a chairman, two representatives of "consumers," two "industry" representatives, and one representative of each of the Departments of Health and of Agriculture. The function of the Board would be to exercise complete control over the four major branches of milk supply: production, transport, treatment, and distribution. The Board would insist on the regular veterinary inspection and tuberculin-testing of all cows supplying milk to the city; on proper cleansing and sterilization of utensils on the farm, and on adequate cooling of the milk; on control of the health of the dairymen handling the milk; on the provision of special vehicles to ensure that the milk is kept below 50° F. during transit; on compulsory pasteurization under thoroughly supervised conditions; on the filling of the milk into sterilized bottles with mechanically fitted caps; on the distribution in vehicles designed to keep it cold; on the use of a methylene-blue test for controlling the bacterial cleanliness of the milk before pasteurization, and of a phosphatase test to control the adequacy of the heat treatment; and on the general education of farm and dairy personnel in the hygienic production and care of milk. The South Australian programme is not idealistic, though it would need some modification before being applied to this country. The creation of an independent body to control all stages of milk production, transport, processing, and distribution is an amplification of the proposal for a Permanent Milk Commission put forward by the Milk Reorganization Commission in its 1936 report.[2] The Government has never accepted this suggestion, with the result that these different stages have come more or less under the control of separate bodies, and that no one body is interested in "seeing the milk through" from start to finish.

The health authorities now have little say in the cleanliness of the milk coming into our large towns and cities; this is very largely the business of the Ministry of Agriculture. In spite of the active prosecution during the last three years of a national milk-testing scheme organized by the Ministry it is probably true to say that the bacterial cleanliness of the milk is no higher now than when the scheme came into operation, and is lower than it was before the war. In consequence the large processing firms, which are anxious for their own credit to provide the public with high-quality pasteurized milk, are having to accept milk

[1] *Med. J. Austral.*, 1945, 1, 454: "Safe Milk for a City. Fourteen Points for a Peacetime Plan." Inaugural address before the South Australian Division of the Australian Society of Dairy Technology, at Adelaide, Jan. 25, 1945.
[2] *Milk.* Report of Reorganization Commission for Great Britain. Ministry of Agriculture and Fisheries, Economic Series, 1936, No. 44. H.M.S.O., London.

such a low standard of bacterial cleanliness that it is no longer possible for them to ensure a good keeping quality for their product.

We hope that the new Minister of Health, in his search for a solution of the milk problem, may consider the proposal to appoint one representative body to supervise all aspects of the milk supply, so that this important constituent of our dietary shall be no longer left to the multiple hazards to which it is now exposed.

COLD AGGLUTININS

The presence of cold agglutinins in the serum of cases of primary atypical pneumonia was first reported by Maxwell Finland and his colleagues at the Boston City Hospital in 1943. Their detection was originally due to anomalous findings in attempting to ascertain the blood group of two such patients who developed a haemolytic anaemia. Finland and his colleagues have now published a series of papers[1] describing a systematic study of this phenomenon. The test can be carried out with either plasma or serum from the patient, falling dilutions of which are mixed with an equal volume of a 2% suspension of washed Group O red cells. The tubes are refrigerated overnight, and read after inversion to loosen the deposit of cells. Agglutination varies from a single cohesive mass to fine granularity. Warming to 37° C. for 2 hours completely disperses this form of agglutination.

This test was applied in 211 cases of primary atypical pneumonia, of which the great majority were found to have high cold agglutinin titres, usually over 1 in 80 and sometimes as high as 1 in 2,560 or even more. Repeated tests showed that the agglutinin usually appeared during the second week of the disease. The maximum titre was reached about the beginning of the third week, after which the level fell rather less steeply than it had risen. The test was also performed in 858 other patients suffering from a great variety of conditions: of these, 809 had no significant titre of cold agglutinin, and only 9 had a high one. Three of the 9 were suffering from pneumonia of bacterial origin, 1 from influenza, 1 from tuberculous pleural effusion, and 4 from haemolytic anaemia. The test is therefore rarely positive in conditions other than primary atypical pneumonia, and a high degree of reliance can be placed on it as a diagnostic aid. Other diseases in which positive results have been observed are unlikely to cause confusion: they are trypanosomiasis and tropical eosinophilia.

In their exhaustive study of this reaction from both the technical and the theoretical standpoints the authors have exactly defined its mechanism and significance so far as this is possible without actually identifying the substance responsible. There is a possibility that it is not an agglutinin, but a virus, the reaction corresponding to the Hirst phenomenon—the agglutination of red cells by influenza virus. Its comparative instability tallies with such a hypothesis. On the other hand the fact that most of these sera also agglutinated to a high titre two strains of indifferent streptococci isolated from the lung and sputum of cases of primary atypical pneumonia points rather to an antibody. The association of cold agglutinin with haemolytic anaemia has a peculiar interest of its own. Four out of 7 cases of haemolytic anaemia of various types without pneumonia had high cold agglutinin titres, and 11 of the 211 cases of primary atypical pneumonia developed a haemolytic anaemia; indeed it was in grouping the bloods of 2 of these patients before transfusion that the reaction was discovered. It is quite clear that the agent causing cold agglutination has no haemolytic action, but the possibility is discussed that agglutination in the circulation, taking place perhaps in a chilled peripheral area, may predispose mechanically to lysis. Until this interesting subject is further clarified the test for cold agglutinin might well be employed in obscure cases of haemolytic anaemia as well as in suspected cases of primary atypical pneumonia.

[1] *J. clin. Invest.*, 1945, **24**, 451.

THE SUPPLY OF MIDWIVES

The roll of midwives for England and Wales contains the names of just over 70,000 women, but the number who stated their intention to practise in 1945 is 16,374. This number is an increase on the last four years, and was exceeded only during 1937–40. There are now 2,096 more practising midwives than there were twenty years ago, and the number practising compared with the total number on the roll has gone up in those years by nearly 1%. Of the practising midwives only four now remain who were enrolled as having been in bona-fide practice before the passing of the Midwives Act, 1902, and less than 10% of those now practising were enrolled before 1920. About two-thirds of the midwives are aged between 27 and 47, and only 5.3% are under 27. The register of pupils shows a slight drop for the year. Down to 1935 the number of penal removals from the roll on charges of malpractice, negligence, or misconduct nearly always reached double figures in the year, but of late it has been no more than four, and last year it was only one.

The Central Midwives Board has now approved 97 institutions for the giving of instruction prescribed in the rule on the administration of nitrous oxide and air by midwives, and 2,675 midwives are known to be qualified to give gas-and-air analgesia. The Board has raised again with the Royal College of Obstetricians and Gynaecologists the possibility of amending that part of the rule which requires the presence of a second person at the time of administration, and in the light of a report from the College the Board has been able to amend the rule—a step which it thinks should help to increase the use made of gas-and-air analgesia. Local supervising authorities have been circularized to the effect that a midwife should not administer any drugs of the sulphonamide group except on the specific instructions of a medical practitioner. The Board has agreed to consider sympathetically applications for entry to the midwife-teachers' examination from midwives who gained their post-certificate experience in the Colonies. This has been done on representations from the Rushcliffe Committee on the Training of Nurses in the Colonies. The Board is anxious to do all in its power to help in the improvement of colonial midwifery services.

The Board's report, which is in summary form for reasons of war economy, and relates to the year ended March 31 last, pays tribute to the war service of midwives. "Although they are not to receive any official recognition, not even Defence Medals . . . almost unsung and unhonoured, they perform a public service of prime importance with a devotion which is an example to all."

THE HALF-YEARLY INDEXES

The half-yearly indexes to Vol. I of the *Journal* and the *Supplement* for 1945 have been printed. They will, however, not be issued with all copies of the *Journal* but only to those readers who ask for them. Any member or subscriber who wishes to have one or both of the indexes can obtain what he wants, post free, by sending a postcard notifying his desire to the Accountant, B.M.A. House, Tavistock Square, London, W.C.1. Those wishing to receive the indexes regularly as published should intimate this.

Nova et Vetera

THE EARLY JEWISH CONTRIBUTION TO MEDICINE

The Jews and Medicine: Essays. By Harry Friedenwald, M.D., D.Sc., Professor Emeritus of Ophthalmology in the University of Maryland. Vols. I and II. (Pp. 817; illustrated. $7.50.) Baltimore: The Johns Hopkins Press.

Dr. Harry Friedenwald is one of the most-respected medical men in America. He graduated from Johns Hopkins more than sixty years ago, worked at ophthalmology in Berlin and Vienna, and was long professor of that subject in the University of Maryland. He has attained the highest distinction in his department and served as President of the American Ophthalmological Society. His leisure has always been devoted to historical studies. His generosity with his services, as with the books from his great library, has known no bound. "Such men as Friedenwald," said his friend Osler, "are the true salt of the earth." These volumes contain reprints of 42 articles by him on the relation of the Jewish people to medicine. They are a memorial of which the Johns Hopkins Institute of the History of Medicine is rightly proud.

During the last hundred years, as in several other periods of history, Jews have taken a large share in the development of medicine. For this there are historic, economic, and social reasons. A record of the medical achievements of Jews might be interesting, but this is not Dr. Friedenwald's objective. He is less interested in distinguished Jewish physicians than in their influence as carriers of civilization. Jewish or Hebraic civilization varied in value at different periods. On its investigation Dr. Friedenwald has spent a lifetime. A life's work cannot be reviewed in a short article, but it may be useful to summarize the early Jewish contribution to medicine, mentioning typical figures on whom Dr. Friedenwald has something new to say. The reader must turn to his volumes for detailed reference.

(*a*) *The Biblical and Talmudic period* of Hebrew medicine to about the sixth century A.D. has been comprehensively treated by Preuss. No one is likely to add much to his classical work. The contribution of this period is to have laid the foundation of social and personal hygiene.

(*b*) *Dark Age Hebrew medical literature* is nearly as scanty as Latin. For Hebrew, however, this age begins later and ends earlier. The earliest Hebrew medical text is probably that of Asaph of the seventh (?) century. He had Greek sources and exhibits what is perhaps an elaborated Hippocratic oath. More interesting for cultural contacts is Donnolo (*c.* 913–*c.* 983), a South Italian who wrote in a very peculiar Hebrew dialect. His medical work is the first to show Byzantine, Latin, and Arabic influence. It may thus be said to typify the legend of the school of Salerno as the combined product of the "four masters"—a Latin, a Greek, an Arab, and a Jew.

(*c*) *Early Arabic Medical Literature.*—One of the first scientific works written in Arabic is that of the Egyptian Jew Mashalla (*c.* 750–820)—Messahalla of the Latins. References to his astronomy constantly crop up in mediaeval Latin medicine, and Chaucer based his treatise on the astrolabe on it. Even in Galileo's time it was still being printed. The first Jewish medical author in Arabic was the centenarian Isaac Israeli (855–955) of Kairouan—Isaac Judaeus of the Latins. He founded a regular school of physicians, both Moslems and Jews. His works, and specially his excellent treatise on fevers, continued in general use in Latin until the 17th century. It is often quoted in Burton's *Anatomy of Melancholy* (1621).

(*d*) *The Early Latin translators from Arabic into Latin* provide the first glimmer of intellectual revival in the West. They were largely concerned with medicine, and all worked with Jewish aid. Constantine (*c.* 1020–87) the "African" was perhaps of Jewish origin and certainly relied on Isaac's school. He worked for the Norman Robert Guiscard in Sicily and Salerno, ending at Monte Cassino, where he turned into Latin many medical works, including Isaac's. These continued to be read for centuries. Stephen of Pisa translated in 1127 at Antioch, with Jewish aid, a standard medical work of the Persian Haly Abbas. The most industrious of the translators was Gerard of Cremona (1114–87), who spent fifty years at Toledo. Assisted by Arabic-speaking Jews he rendered the works of many Jewish authors, including Messahala and Isaac.

(*e*) *Early Judaeo-Arabic contacts with the West* were sporadic. We refer to only two. Pedro Alphonsi (1062–1130), an Arabic-speaking Spanish Jew converted to Christianity, came to England early in the 12th century as physician to Henry I. A Latin version by him of an Arabic work written by himself appeared in 1120 and represents the first impact of Arabian learning on this country. Another Spanish Jewish physician who visited England in the 12th century was the philosopher Rabbi ben Ezra (1092–1167), who was in London in 1158. Several of his works appeared in Latin. He was a most romantic figure and his name has become legendary. See Browning's poem "Rabbi ben Ezra."

(*f*) *The great physicians of the 12th century* wrote exclusively in Arabic. Many were Jews. The most famous is Maimonides (1135–1204) of Cordova—Rabbi Moses of the Latins. He ranks high as a philosopher and deeply influenced St. Thomas Aquinas. From 1165 he was very active as a physician at Cairo and has left a pleasing record of the day-to-day medical life of the time. His contemporary Averroes (1126–98) of Cordova was not a Jew but a heretical Moslem much in contact with Jews. His works, including those on medicine, were translated into Latin, not from Arabic but from Hebrew. The same is true of those of his friend Avenzoar (died at Seville 1162). The works of these men, together with those produced by the Italian translators (see *d*), changed the entire character of Western medicine.

(*g*) *Translators from Arabic into Latin in the 13th century* were numerous. Many, perhaps most, were Jews. They worked chiefly in Sicily, Spain, Provence, and North Italy. A name of romance is Michael the Scot (died *c.* 1235). He learned Arabic in Spain, but Roger Bacon says that he did not know it well but was helped by a Jew named Andrew—perhaps Jacob Anatoli (1194–1256) of Marseilles. Michael did great service in issuing the first Latin version of the biological works of Aristotle. It was probably from a Hebrew text. Farradj ben Salim, a Sicilian, was the first professional translator into Latin of Jewish faith. In 1279 he completed the enormous *Liber continens* of Rhazes of Khorasan (died 932), ablest of the "Arab" physicians, for Charles of Anjou (1220–85). This sovereign of the Sicilies had other Arabic-speaking Jews specially trained in Latin to act as translators. Jewish translators were also active in North Italy. Thus the *Colliget* of Averroes was turned into Latin from Hebrew at Padua in 1275, and the *Theïsir* of Avenzoar and the *Hygiene* of Maimonides about 1280 at Venice. An extremely popular book was the drug list known as the *Canones generales* of Mesue, which influenced the modern pharmacopoeias. It was originally composed in Hebrew, and was turned into Latin about 1300. About the same time or a few years earlier a similar Hebraeo-Arabic drug list was turned into Latin; probably at Genoa, under the name of Serapion. Mesue and Serapion were printed very many times.

(*h*) *Mediaeval translations into Hebrew of Arabic works* once existed in great numbers. Spanish Jews spoke Arabic and did not need them, but among the Jews of Provence and Italy such knowledge was rare and by the 13th century was fading. The high reputation of Jewish doctors was based on their access to the "Arabian" medical system. Thus Hebrew versions became ever more needed by them as their Arabic knowledge waned. But the new Greek learning of the 15th and 16th centuries rendered the "Arabian" medical system out of date. Hebrew translations thus became useless. The only one to be printed was the huge Canon of Avicenna (Naples, 1491).

(*j*) *Medical Literature of the Spanish Migration.*—Jews were settled in numbers in Spain before the Christian era. The first literary language of the peninsula, other than Latin, arrived with the Saracens. Educated Spanish Jews came to speak and write Arabic. A very rich and varied Jewish literature arose in Arabic, Hebrew, Catalan, and Castilian. The Inquisition and the expulsion of the Jews from Spain in 1492 struck a blow at the Jewish people from which it has probably never recovered. The Spanish Jewish emigrants, however, supplied numbers of distinguished physicians to various parts of Europe for generations. The classic figure of the emigration is Spinoza. In medicine there are, for example, Amatus, whose case-lists are among the earliest of their kind since Hippocrates; Astruc, the

syphilographer and founder of Biblical criticism; Brudo, learned in Greek medicine, who visited England; Rodrigo de Castro, who wrote the first scientific gynaecology; Rodrigo de Fonseca, professor of medicine at Pisa in the time of Galileo; Jacob Mantino, a papal physician who played a part in Henry VIII's efforts to divorce Katherine of Aragon; Fernandez Mendes, the first Jewish Fellow of the Royal College of Physicians; Montalto, physician to Marie de Medici; Nostradamus, the "prophet"; Garcia da Orta, the botanist; Pereira, the pharmacologist; Saporta, name of a whole lineage of physicians at Montpellier; Vecinho, adviser of Columbus. And evidence is accumulating that Columbus himself belonged to the stratum of "Marranos" or descendants of forcibly converted Jews.

(*k*) *The Modern Stratum.*—Jewish literature has endured for some 3,500 years. Perhaps its least-esteemed period is from the early 16th to the later 18th century A.D. Apart from the Marranos and their descendants, Jews became unimportant in medicine until the 19th century. But with the liberal movement which followed the French Revolution they began to play a steadily increasing part in medicine. Thus, for example, in Germany the Jews, who formed one per hundred of the population, provided about one in five of the important medical investigators. But this modern contribution has been in no sense "Jewish medicine." It is part of the great "liberal" movement in every other aspect of which Jews have shared. Will the substantial obliteration of Jewish intellectuals in Central Europe and the rise of anti-Semitism elsewhere produce the same prolonged spiritual depression of the Jewish people as did the persecutions of the 15th and 16th centuries? Time alone can show. But the reviewer is inclined to believe that Dr. Friedenwald will have few successors for many generations.

THE FIRST TREATISE ON RICKETS

Three hundred years ago, on Oct. 18, 1645, a medical student aged 26 read at Leyden for the degree of M.D. a thesis entitled *De morbo puerili Anglorum quem patrio idiomate indigenae vocant "The Rickets."* Published in Leyden the same year, this deserves an honoured place among the classics of medicine, being the first printed account of rickets and antedating Glisson's *De Rachitide* by five years. For succinctness and accuracy Daniel Whistler's clinical description could hardly be improved upon (Leonard Findlay). He mentions the softness of the bones, the large head, the narrow chest, the prominent sternum, the swelling of the costo-chondral junctions and of the epiphyses at the wrists, and the distended abdomen. Though his pathology is steeped in speculation, he had boldly shaken off the chains of the humoral theories. Never at any time pretending to have discovered a new disease, he contented himself with introducing a new and unforgivably hideous name—"Paedosplanchnosteocases." Uneasy over the priority of his description being overlooked, Whistler had his thesis reprinted in London shortly before his death, in 1684, from "malignant fever with peripneumony."

A picturesque personality of distinguished charm, to which both Pepys and Evelyn testified, and of facetious wit in which Oliver Cromwell delighted, Whistler was a good physician but a poor poet. According to Munk he took advantage of his position as President to defraud the Royal College of Physicians, though it is not recorded in what precise manner or to what extent. One likes to speculate to what strangely beautiful language the author of *Hydriotaphia* might have been moved by the contemplation of so ironic a fate which immortalized the doubtful aberration of a great clinician, while scattering the poppy of neglect over his masterpiece.

W. R. B.

A correspondent of the *Times* has reported that at a meeting of the Swedish Linné Society, held in the Linnaean Museum at Uppsala, Hr. Anders Grape, chief librarian at Uppsala University, announced the discovery of Linnaeus's manuscript on his contribution to the Swedish Pharmacopoeia, known as the *Materia Medica*. It had been regarded as lost. Those present were given the opportunity of convincing themselves of the genuineness of the document, which was passed round and scrutinized. It is now incorporated in the Linnaeus collections at Uppsala.

Medico-Legal

THE CASE OF A "COCKTAIL TONIC"

A novel kind of prosecution under the Food and Drugs Act, 1938, was heard by justices at Newport Pagnell (Bucks) on Nov. 22, when Vinecta Products, Ltd., of Dewsbury, were summoned for giving a misleading label with a drug described as a "cocktail tonic (non-alcoholic)." The label contained also the words "palatable and invigorating"; and the following formula:

	%
Inf. gent. co.	1·11
Tinct. aurant. aq.	0·084
Ferri et ammon. cit.	0·52
Acid. citric.	0·25
Acid. tart.	0·34
Chlorof.	0·31
Flavouring	q.s.

A half wineglass three times a day was recommended as suitable for children and adults, to be taken before meals.

For the prosecution it was admitted that the formula was accurate, but it was contended that the mixture could not properly be described as a tonic or as invigorating, by reason of the extremely small proportions of gentian and of iron and ammonium citrate, which provided doses smaller than the minimum *B.P.* doses. The county analyst stated that the mixture was essentially coloured and flavoured chloroform water, and that chloroform had no tonic properties. It was also argued that the use of the word "cocktail," however qualified by the phrase "non-alcoholic," was misleading to the ordinary purchaser.

Counsel for the defence, Mr. R. A. Robinson, called two medical practitioners and a "man in the street" as witnesses. The latter stated that when feeling run down he had taken the tonic regularly for several weeks and it had improved his health notably. The medical witnesses refuted the suggestion that the mixture could have no tonic effect, and pointed out that proprietary articles and "tonic water," sold to all and sundry across the counters of grocers' and pharmacists' shops, should not, and did not usually, contain what might be called normal medicinal doses of their ingredients. In this connexion the composition of such preparations as Kruschen salts, Clark's blood mixture, and phospherine were referred to, and it was pointed out that quite small doses of iron and ammonium citrate were to be found in vinum ferri citratis (*B.P. Codex*) and in various stock mixtures described in many hospital formularies, especially those used at children's hospitals, and in the Admiralty's handbook of prescriptions for the Royal Navy. It was stated in the witness-box that the chloroform in the cocktail tonic caused a sensation of warmth in the stomach, and one medical witness added that he considered the public analyst's observation, to the effect that the cocktail tonic was essentially chloroform water, to be a spiteful comment.

The magistrates on retiring to consider their decision accepted counsel's suggestion that they should taste the preparation. On their return they announced that the summons was dismissed.

The *Manchester Guardian* on Oct. 18 gave a brief report of a civil action heard at Carlisle Assizes, the defendant being a temporarily registered medical practitioner, Herman Augapfel, M.D.Vienna. A six-year-old girl and her father claimed against Dr. Augapfel for the accidental scalding of her left hand in a Whitehaven surgery, with results described by the judge as disastrous. The defendant was attending to the girl's septic finger when by mistake he plunged her hand into boiling water without first testing the heat of the water. Evidence was given that the child was intended for a musical career, but would not now be able to become a pianist. Regret at the accident was expressed on behalf of Dr. Augapfel. The judge said that from many points of view the girl's hand was worthless. She was awarded £1,500 damages, and her father, who sued in respect of consequential loss to him, was awarded £55, in each case with costs.

C. P. Stevick (*N. Carolina med. J.*, 1945, **6**, 369) states that pertussis immunization of children before the age of 1 year is now required by State Law in North Carolina. The disease is now the third, or probably the second, leading cause of death among the reported communicable diseases in this State. On the basis of morbidity and mortality figures, immunization of children after the age of 6 months would probably result in a reduction of pertussis deaths within the next five years.

KING EDWARD'S HOSPITAL FUND

At a meeting of the General Council of King Edward's Hospital Fund for London, held on Dec. 13, Lord Wigram took the chair in the absence of the President, H.R.H. the Duke of Gloucester. Lord Wigram reported that it had been found possible, without trenching on reserves, to return to the pre-war figure of £300,000 for distribution in annual grants to hospitals.

"The pressure on hospital beds is exceptionally heavy," Lord Wigram said, "and we are doing all we can to encourage and assist the hospitals to overcome the many difficulties with which they are confronted in re-establishing services on a pre-war scale. It is known that the Government is contemplating far-reaching proposals with regard to the hospital services. The voluntary hospitals have a great contribution to make to the future hospital service of the country. We recognize the need to supplement their resources with support from public funds, and to weld the whole hospital service into something more of a system than it is to-day. The new proposals, however, must be such as to encourage and not to stifle voluntary initiative. Real freedom in planning and spending is essential, and is compatible with support from official sources. What is urgently needed is a central hospital board working through regional bodies entrusted with ample funds to build up and sustain all existing hospitals of good repute. These bodies would have a full knowledge of the local conditions, and their influence would be very great. Regional bodies, if properly constituted, could gradually develop a hospital service which would preserve a large measure of independence and variety in the individual hospitals. The Fund has already submitted to the Ministry a statement of principles outlining its views on a future hospital service. We also prepared and issued, a few months ago, a much more detailed report, entitled *Post-war Problems*, in which many of the questions that must arise have been discussed at length."

Income and Expenditure

Sir Edward Peacock said that the income for the year had been well maintained. Subscriptions and donations stood at £39,000. Legacies amounted to £122,600, and income from investments to £208,000. In addition £75,000 had been received from the Nuffield Trust for the Special Areas. After deducting expenses the net total came to £426,000 for 1945, compared with £335,600 for 1944. The ordinary distribution had been restored to £300,000, whereas in 1942, 1943, and 1944 it was reduced to £280,000, in order to provide some reserve for the heavy requirements of the hospitals after the war. It seemed that the total income would show a satisfactory balance for the year of over £116,000. There was so far no evidence of any falling off in receipts, despite recent rumours in the press. The voluntary contributions to hospitals were something that should be guarded in every possible way. No mere Government subsidy could take their place, for they represented the devoted efforts of millions of people to help the community.

Sir Ernest Pooley, chairman of the Distribution Committee, presented the report of the committee and the schedules containing the list of grants to hospitals and convalescent homes amounting to £300,000, and these were adopted. A report moved by Lord Donoughmore providing for a series of bursaries in hospital administration was approved. It had been suggested that the Fund might take action to help to fill the gap created by the war by training younger men and women of ability as hospital administrators. The bursaries were to be for a period of twelve months, renewable for a further period of six months, and were of the value of £600 per annum. It was proposed to provide twelve, tenable at some of the larger voluntary hospitals.

The Standard of Hospital Services

Lord Horder referred to the stimulating account from the chair of the recent activities of the Fund in several directions. There could be no question that the King's Fund was carrying out the objective laid down by Act of Parliament. The wording was significant; the Fund was empowered to apply its moneys for the support, benefit, or extension of some or any of the hospitals of London, and to do all such things as might be conducive thereto. He spoke as one who had watched the administration of the hospitals for many years with deep interest, and he took the view that the more the King's Fund could do to maintain and raise the standards of hospital services the better for all concerned. Here were a number of hospitals which were accepted by the public as efficient, and the good work they were doing was the result of slow evolution assisted very greatly by the work of the King's Fund. He held that it would be a very foolish Minister of State who would hope to set up new and alternative machinery for a hospital service, whether in London or the Provinces, to replace the existing institutions. The Minister of Health was known to be a forceful person, and Lord Horder was optimistic that he would also reveal statesmanlike qualities, of which the chief was forbearance.

THE HEALTH OF BIRMINGHAM

New low records in mortality tables are shown in the report of the Medical Officer of Health for Birmingham (Dr. H. P. Newsholme) for 1944. The death rate (11.2) is below any previous war-year figure; in 1940 the rate was 14.3. The infant mortality rate for the first time fell below that for England and Wales as a whole, being 42 for 1,000 live births compared with 46 for the whole country, while the maternal mortality rate fell sharply to 0.95, which is only about half of what it was during the earlier war years. The incidence of notifiable diseases, with the principal exception of tuberculosis, was well below the average of the previous ten years. Diphtheria fell markedly, and the type was less severe, the case mortality falling to 2.7% compared with about 14% during the first twenty years of this century. The disquieting thing is the further increase, though a small one, in the incidence of pulmonary tuberculosis. The notification rate to the 1,000 population was 1.20, equal to the average figure for the years 1931–5, since when it fell, in 1939, to 0.82. The death rate (0.70) is slightly down, and in fact is comparable with the previous lowest rate recorded in 1938; but while this low rate, in view of the progressive increase in notifications during the war, may reflect a welcome tendency to start treatment at an earlier stage, it is feared that the wartime impetus to the incidence of tuberculous pulmonary disease is likely to determine a fresh rise in the death rate.

Mass Radiography: An Analysis

The mass radiography service was introduced into Birmingham in October, 1944, and by March of this year 13,692 people had been examined. Those who are referred from the mass radiography department with a tentative diagnosis of pulmonary tuberculosis are examined at the antituberculosis centre after a reference to, and a brief clinical statement from, their doctor. It is stated that this "has enabled the practitioner to obtain knowledge of all cases detected within his practice with a suspicious large film, and the clinical statement obtained from the practitioner has been of advantage to the tuberculosis medical officers." The programme of the scheme deals, in the order stated, with the following groups: employees in two large factories with well-organized medical departments; university students; employees in two departments of the local authority; school-leavers; civil servants; employees of a large warehouse; and re-examination of selected age groups from those originally examined in the first two factories. Of the 13,700 miniature films taken, 1,401 suggested some abnormality and large films were made; the abnormality was shown in 538 of the large films, but in 165 cases it was judged to be of no clinical significance, and of the 367 cases which went on for clinical examination, 168 were referred for further investigation. Of these 168 (1.2% of the number originally examined) 35 were found to require no treatment, 71 were supervised from the antituberculosis centre, 39 were sanatorium cases, 20 were referred to general practitioner or to a tuberculosis officer outside Birmingham, and 3 failed to attend. The number of cases of active pulmonary tuberculosis detected was 50, or 0.36% of those initially examined. It is considered from an analysis of the results that in Birmingham there are some 2,700 undetected cases of active pulmonary tuberculosis and 800 individuals are voiding tubercle bacilli in their sputum unknown to their doctor or to themselves. The estimated total number of examinations is 60,000 a year.

MEDICAL RESEARCH IN SOUTH AFRICA

The South African Institute for Medical Research, Johannesburg, continues its active work in a variety of fields under the directorship of Dr. E. H. Cluver, who holds also the post of professor of preventive medicine in the University of the Witwatersrand. Close co-operation between the Institute and the University is maintained; three other senior members of the staff are heads of departments at the Medical School with the rank of professor.

The annual report for 1944 is published from P.O. Box 1038, Johannesburg. The personnel of the staff comprised 187 Europeans and 162 Africans. Several scientific societies held meetings at the Institute during the year, when demonstrations were given of some of the work being carried on in the laboratories. The South African Medical Corps Establishment continued to operate under Dr. Cluver in his capacity as director of pathology to the Union Defence Force. One section of the report is devoted to this war work, which included the manufacture of crude penicillin filtrate for external wounds and skin diseases at a time when the supply of pure penicillin even for military purposes was still strictly rationed. Another section describes briefly research on a number of diseases carried out during the year. In the biochemistry department Dr. F. W. Fox, in conjunction with Prof. J. Irving of Capetown University, pursued his

studies of bread-nutritional matters. The Institute's routine diagnostic work, research resulting therefrom, and the adoption after trial of improved laboratory aids to diagnosis were supervised by the deputy director, Dr. George Buchanan. Apart from the routine laboratory investigation of more than 340,000 specimens the medical officers gave attention to 3,000 patients referred by medical practitioners for various tests and examinations at the Institute. Post-mortem examinations carried out at the Johannesburg General Hospital numbered 793, and, in addition to these, 82 necropsies were performed at the Institute's mortuary. During the year 829 pairs of lungs were examined on behalf of the Miners' Phthisis Medical Bureau. Big demands were again made on the serum department because of war requirements of the Union and Allied Governments. Large quantities of stock and autogenous vaccines were produced during the year. The report ends with notes from the Port Elizabeth and Bloemfontein Branches, and a list of publications.

STAFFING OF MAUDSLEY HOSPITAL

A report on the organization of the medical staff of Maudsley Hospital in relation to post-war developments has been made to the London County Council.

When it is again in full use Maudsley will have accommodation for 290 in-patients, including 30 beds for children, and a new block with 60 beds which was originally intended for private patients. There are also a large and growing out-patients department, clinics at three hospitals in the north and east of London, and observation ward work at one hospital in the south. The medical staff also act as consultants in psychiatry to certain general hospitals. Apart from the positions of medical superintendent and director of clinical psychiatry, the pre-war fixed staff of the hospital consisted of three part-time consultant psychiatrists, one first assistant medical officer, six part-time medical officers, six second assistant medical officers, and four other assistants. The L.C.C. proposals for the post-war medical establishment provide for the equivalent of 28½ whole-time units as against 16½ units before the war. For the positions of physician, paediatric physician, senior physician in psychotherapy, and assistant clinical director a fixed salary of £1,000 a year is proposed. The scale of salary suggested for the assistant physicians is £700–£800, with an allowance of £50 to the officer acting as deputy medical superintendent; for the senior registrar £625–£700; for the junior registrar £470–£570, plus £50 for any holder of a diploma or degree in psychological medicine; and for house-physicians £250. The position of psychotherapist, a part-time appointment, will carry a remuneration of £300 for five sessions of three hours each for 48 weeks a year.

It is pointed out that one of the functions of the Maudsley Hospital is to train teachers of psychiatry for the medical schools, and that it is clear that, quite apart from the ordinary requirements of the psychiatric treatment given at the hospital, the medical establishment must include a sufficiency of staff of the right quality to provide undergraduate and postgraduate education at a high level. The report of the Mental Hospitals Committee of the Council states that the suggestion of a fixed salary of £1,000 for the six positions of physician, paediatric physician, and senior physician in psychotherapy is based on the expectation that there will be a flow of whole-time workers to higher positions elsewhere."

Reports of Societies

DISCUSSION ON D.D.T.

A discussion on D.D.T. (dichloro-diphenyl-trichlorethane) was held in the Section of Experimental Medicine of the Royal Society of Medicine on Dec. 11. Dr. E. N. ALLOTT, and afterwards Dr. GEORGE GRAHAM, occupied the chair.

Toxic Effects

Prof. G. R. CAMERON spoke of the risks likely to be encountered in the production and use of the new insecticide—the risk to the skin from spraying or splashing, the risk by inhalation of mists or smokes, and the risk of contamination of food or water by accidental mixture with the compound. The powder form, he said, was only to a slight extent soluble in water, and very difficult for the skin to absorb, but the risk was very much greater with oily solutions or suspensions, which were absorbed quite easily through the skin and mucous membrane. In rats and guinea-pigs a single dose of D.D.T. was relatively non-toxic as a powder, but in oily form, mixed with liquid paraffin, anything between 150 and 800 mg. per kg. body weight was fatal for the rat, and between 400 and 1,000 mg. for the guinea-pig. For these animals D.D.T.—in these heavy doses—was two or three times as toxic as aspirin. If D.D.T. in a bland fluid like paraffin were injected subcutaneously, large quantities could be used without ill effects. Single doses, therefore, had no great toxicity, but it was another story with repeated doses of oily solutions. In small animals about one-fourth or one-fifth of the fatal single dose, when repeatedly administered, gave rise to symptoms and ultimately caused death. Of the mediums for oily suspensions, olive oil seemed to be the most fatal.

As for the risk to man, certain experiments were made with 58 soldiers who volunteered to wear undergarments heavily impregnated—1%, weight for weight—with D.D.T. Each of these men had had exposed to his body something like 70 or 80 g. of D.D.T., and had worn these garments for from four to six weeks. Nothing happened to give rise to anxiety. The men who carried out the impregnation of the garments and were exposed to quite heavy concentrations of D.D.T. in kerosene also suffered no harm, except for a slight dermatitis in some of them, which quickly disappeared. Two or three of these men also showed a significant rise in blood calcium. The conclusion drawn was that contact with D.D.T. in the form of a slightly moistened powder need give rise to no concern. Some experiments had been made with the object of finding out what happened when wound surfaces were exposed to D.D.T. powder. In wound surfaces in animals there appeared to be no difference in the healing of those which had been covered with the powder and those which had not.

The symptoms of D.D.T. poisoning, after a very heavy single dose in animals, were cold skin, diarrhoea, and characteristic nerve signs, sensitiveness to stimuli of all kinds, weakness of muscles, and, in the last stage, tremor. Death occurred from respiratory failure within 24 or 48 hours. The animal might recover, if the experiment had not gone beyond a certain stage, on the complete washing away of the D.D.T. No characteristic lesion was found in the central nervous system. With small repeated doses the animal began eventually to lose weight and develop complete anorexia; nervous and muscular signs came and went, hypersensitiveness was also present, and death came in a quiet fashion from exhaustion. A leucocytosis became pronounced as the animal began to deteriorate. In conclusion Prof. Cameron said that in man no ill effects were to be apprehended with D.D.T. powders or sprays when the substance was used in low concentration (not above 1%). Care must be taken in handling concentrates, and any of the substance which got on the skin should be washed off with soap and water as soon as possible. People working with these concentrates for any length of time should wear gloves and other protective garments, and when spraying should use respirators.

Experience in the Field

Dr. H. D. CHALKE said that when Naples was occupied in October, 1943, the city was in a terrible condition. It was overcrowded, large numbers of people were living in caves, and no soap was available. The Neapolitans, including the members of the medical profession, were in a state of apathy and despair. Epidemics, particularly typhoid, were feared. A typhoid epidemic did not arise, but typhus cases began to be reported. The Rockefeller Foundation team arrived early in December and immediately started mechanical dusting with the American powder M.Y.L. Only towards the end of the period was D.D.T. used. It was the American idea of mechanical dusting with power sprays which, he believed, had most to do with the sudden stoppage of what bade fair to be a considerable outbreak of typhus by an early week in January, 1944. The cases reported weekly got up to 300, but the following week they came down to half that number. By early March it was evident that the outbreak was petering out. The defeat of the typhus epidemic in Naples (there were about 1,800 cases) was not entirely due to the use of D.D.T., but to the mechanical means of dusting insecticide powders, whereby a large number of people could be disinfested without being undressed. At the same time he must not be taken as saying that D.D.T. did not play an important

part. As soon as sufficient supplies were obtained it was realized what an enormously valuable weapon it was.

D.D.T., he thought, was an insecticide for masses of people who were not under discipline. In the Army a bathing and cleansing routine was possible, but with D.D.T. it did not matter that the people were unwashed or congregated in shelters—in fact, it was an advantage that they did not change their clothing once a week; the insecticide powder was thereby assured of longer contact. The lesson for the British Army was that infestation could be controlled without the cumbersome steam disinfestors, and the hygiene section could be released for more purely hygienic and sanitary duties. The infestation rate in 1944 was just about half what it had been in 1943. Impregnated shirts were issued to the Army on a large scale, but no toxic effects were recorded. With 5% D.D.T. in kerosene it became quite a simple matter to control the bed bug. A point to bear in mind in using D.D.T. spray was to have a coarse spray: not coarse enough to be wasteful, but giving so near an approach to a liquid that what was ejected remained on the walls of a room and did not all settle on the floor.

An outbreak of plague at Algiers at about the same time was also dealt with successfully by D.D.T. Early in 1944 it was realized that D.D.T. had enormous possibilities in malaria control; 2 to 5% solutions of D.D.T. in kerosene were found to have a most remarkable and persistent effect on the mosquito. Spraying from the air was employed over a width of 115 yards and a length of 700 yards on each flight; in the southern part of the Po Valley, which was terribly infested, mosquitoes and flies became almost non-existent.

It was assumed from the beginning that D.D.T. solutions in kerosene were toxic, and the operators were issued with protective clothing. Two cases of poisoning were reported, but more likely they were cases of heat-stroke, and they quickly passed off. D.D.T. was undoubtedly the most remarkable insecticide yet produced. It had been one of the most potent factors in winning the war in Italy, for in spite of the large incidence of malaria in the civil population the Army remained relatively free.

Major K. R. HILL described a fatal case, of which a full account was given in the *Journal* of Dec. 15 (p. 845). Dr. R. A. M. CASE discussed experiments undertaken at the Royal Naval Physiological Laboratory and described at length in the same issue (p. 842).

Dermatitis from Impregnated Clothing

Lieut.-Col. HILLIER, speaking for the dermatological service in the B.L.A., said that the B.L.A. was the first Force to go overseas with impregnated shirts. They went to France in June, and by September a great number of cases of dermatitis had occurred, undoubtedly associated with the shirts. Cases were now being seen in Germany at the rate of 300 or 400 a month, so that there must have been several thousand cases. A number of tests were carried out and the results were practically all negative. The dermatitis affected particularly the areas where the shirt was pressed against the skin. The skin was almost invariably purpuric. He was quite sure that it was not due to D.D.T. as such. It was considered whether it might be due to some alteration in the D.D.T., perhaps in the washing process, but all investigations had failed to convict D.D.T. directly. The striking fact was that this extraordinary rash was something new to the B.L.A., it did not appear elsewhere, and the B.L.A. was the one Force which had gone out with impregnated shirts. Another interesting point was that the men went over to France in remarkably clean condition. The incidence of lousiness was only 1 per 1,000 a month, and that of scabies about the same. This state of affairs continued so long as they were in Normandy, but on moving into Belgium and Holland, with greater contact with the civilian population, the incidence of trouble due to *Pediculus pubis* rose by eight or ten times, though that due to *Pediculus corporis* remained absolutely steady. D.D.T. unfortunately had no effect on scabies at all.

It was agreed to pass on to the Council of the Section a recommendation that, in view of the fact that D.D.T. can be purchased from any chemist, legislation should be sought governing the nature of the product and that it should be stated on the label what percentage of D.D.T. was contained, the nature of the solvent, and accurate directions for use.

HORMONE THERAPY OF CANCER

The present position of hormone therapy in the treatment of cancer was the subject of a discussion in the Medical Society of London on Dec. 10, Sir JAMES WALTON presiding.

Work on the Oestrogens

Prof. E. C. DODDS said that it had been claimed for every endocrine organ at one period or another that it was capable of producing a substance which would effect a cure or amelioration of cancer, but he thought it could be said that the whole of these claims remained unverified save only in respect of the oestrogens and, possibly—he used the word "possibly" advisedly—the androgens. The prostate had been recognized for 50 or 60 years to be under control of the testes, and it had been thought that removal of the testes might affect prostatic enlargement beneficially. Nothing very much happened until the experimental work of Huggins, professor of surgery in the University of Chicago, who had shown that the prostate could be controlled by hormonal influence. Huggins started his investigations on the clinical aspect of carcinoma of the prostate with the knowledge that acid phosphatase was a measure of prostatic activity, and that such activity could be increased by injecting androgens and decreased by injecting oestrogens. If a patient with carcinoma of the prostate and bony metastases were castrated there was shown to be a diminution of prostatic activity due to the withdrawal of the androgens secreted by the testes—a result shown biochemically by an ultimate fall in acid phosphatase, and clinically by a considerable improvement in the patient, with diminution of local obstructive symptoms and secondary symptoms due to pressure.

What was meant by the term "oestrogens"? It had been known from time immemorial that the ovary was associated with the cyclical activity of the female, and therefore it was natural that biochemists should try to obtain an extract from the ovary with a view to reproducing these cyclical changes. By 1930 the structure of the natural oestrogens was determined. These were substances which were capable of reproducing the greater part of the female sex hormone. It was unfortunate that they had to be injected either subcutaneously or intramuscularly—given by mouth they were almost inactive.

Synthesis of Stilboestrol

In his own laboratory, Prof. Dodds continued, after some eight years' work, three substances were found which were now in use in clinical medicine. Of these synthetic oestrogens the best known was stilboestrol, which was used in the treatment of gynaecological and obstetrical disorders and in carcinoma of the prostate. These synthetic oestrogens were very cheap and simple to make, were not controlled by any patent restrictions, and were active when given by mouth. The dosage in each case must be determined empirically. If a patient did not respond to a relatively high dose, increasing the dosage would not effect an improvement. Any toxicity was due entirely to the oestrogenic nature of these compounds and in no way associated with their molecular structure. Stilboestrol was possibly the most active of them oestrogenically, and therefore the most liable to cause toxic reactions. The nausea was comparable with the nausea of pregnancy which occurred when the female organ was suddenly flooded with oestrogen. The action of these substances might be on the anterior lobe of the pituitary, producing a castration effect; on the testes directly inhibiting the secretion of testosterone; or in some unknown manner on the cancer process. Personally he doubted the first two hypotheses, and he was inclined to think that the substance acted directly on the cancer process. It was reported that in America there were on record patients who had improved greatly after castration, and had then gone downhill, but had afterwards responded to stilboestrol. If that was so it indicated that there was a possibility of production of androgens from the suprarenals.

Had stilboestrol any value in other forms of cancer? Its administration in carcinoma of the prostate was the result of careful laboratory work, not haphazard experiment, but among the results recorded in cancer of other sites the only definite outcome was that stilboestrol did appear to have a statistically significant effect on a small proportion of cases of carcinoma

of the breast. The Radiology Section of the Royal Society of Medicine carried out an inquiry on this point two or three years ago, from which it appeared that something like 5% of these cases had benefited or had been affected in some way. The real point of the whole work was that for the first time a substance had been produced which, when administered by mouth, had an effect on one form of cancer.

Clinical Aspects of Oestrogen Therapy

Mr. TERENCE MILLIN reviewed 200 personal cases of cancer of the prostate. His conclusion was that oestrogen therapy as now administered would not cure prostatic carcinoma, but it would stave off the evil day. In about 90% of cases the primary growth dwindled and softened to such a degree that at a subsequent examination it was difficult to find. In discussing malignant cases it was out of the question to talk of cure under three years. There was no evidence in his experience that castration—meaning the sponging out of the parenchymatous tissue of the testes—was superior to oestrogen therapy. Where oestrogen failed, castration would very rarely help. The problem was whether to begin oestrogen therapy as soon as cancer of the prostate was diagnosed or suspected or to wait until urgent symptoms developed. Mr. Millin's discussion on this point led to the conclusion that orchidectomy should precede oestrogen if used at all, and the latter should be withheld until the benefits, if any, derived from castration had ceased. His usual dosage was 6 mg. of stilboestrol daily for three or four weeks, then 3 mg. as a maintenance dose. Acid phosphatase estimations he had not found of any great value. As to the toxic manifestations of oestrogen, oedema of the lower limbs could be very distressing; other disadvantages were nausea and loss of sex urge. One patient, aged 71, found oestrogen treatment distasteful from this last point of view and went to his local practitioner, who gave him testosterone, but the prompt return of his symptoms caused him to surrender his libido willingly!

Mr. E. W. RICHES agreed that an immediate good response was to be expected in 90% of prostatic cases treated with oestrogen. He had gone through the records of 20 cases in which oestrogen therapy was started between two and three years ago: 13 were still alive; 5 deaths were due to carcinoma, 1 to pneumonia, and 1 to cardiac failure. The period of survival varied from two years to two months (this last the pneumonia case). Of the 13 alive, one had lived for three years; he had had a massive recurrence after prostatectomy, and started oestrogen therapy nearly three years ago. He had now no clinical signs of the disease, his acid phosphatase remained normal, whereas it was originally raised, and he was perfectly well. Another survivor had had an endoscopic resection four and a half years ago and a course of *x*-ray treatment afterwards; he had been given stilboestrol for eighteen months now and remained well. Of the 20 patients 6 were treated with *x* rays as well as stilboestrol, and of these 6, 4 had died, 3 of them with metastases. Of the 7 patients who had died, 6 had metastases at the time of starting stilboestrol treatment; and of the 13 who were alive, only 4 had metastases. It appeared that the presence of metastases at the time of starting treatment was of vital importance in prognosis. Stilboestrol alone would not prevent the development of metastases. He had had two cases which started with no evidence of metastases, but developed it in the course of treatment, one of them after having been treated for seven months. One patient, bedridden and looking moribund, went back to his work and lived for two years after oestrogen treatment, eventually dying from metastases. In his view acid phosphatase was a valuable means of estimation. It might not always be raised in these cases, but if it was raised it was strong evidence that the patient had metastases. It was more reliable as an index of prognosis. If it went down and stayed down it showed that the patient was responding, and it gave a good indication of the right maintenance dose. If the drug began to fail, the phosphatase rose, and the rise was unaffected however much the drug was increased.

Mr. Riches deplored the indiscriminate giving of stilboestrol in prostatic cases. Many patients with benign prostatic affections were told to try stilboestrol, and this "queered the pitch" from a diagnostic point of view and masked a possible malignancy. The really hard carcinoma of the prostate was easily diagnosed, but in many early cases this was a most difficult diagnosis to make, and could be made certainly only by endoscopic resection and biopsy. If these patients were then taking stilboestrol the help given by the raised acid phosphatase was lost. For dosage he liked to start with 1 mg. three times a day and work up to 15 mg. a day, reducing it when the acid phosphatase came down. He agreed with Mr. Millin that masterly inactivity was a good policy in some early cases, but it was rather a difficult one when they knew that they had a drug which would exert so beneficial an effect in so large a proportion of cases.

Confusing Effects in Hormone Therapy

Dr. S. L. SIMPSON took the view that the oestrogen acted by producing a physiological castration and, more directly, by in some way inactivating the effect of the androgens. Recounting certain work on the endocrines generally and cancer, he admitted that it was confusing and sometimes conflicting, but as it had been shown with stilboestrol in carcinoma of the prostate that recurrences and relapses were still forthcoming, such adverse results with other hormones did not negative the possibility of their beneficial action under the right conditions. If endocrines in one set of circumstances appeared to produce neoplasms and in another set of circumstances caused them to regress and disappear, so did *x* rays and radium. Dr. WILLIAMS, as a laboratory worker, dissented from Prof. Dodds's view that the action of oestrogens was directly on the cancer process; in his opinion it was on the pituitary.

Mr. OGIER WARD referred to the work done on radio-activated elements and asked whether it would be possible to activate stilboestrol in such a way. It would then be possible to determine where the stilboestrol went in carcinoma of the prostate and whether it was distributed all over the body or concentrated in certain tissues. Mr. DICKSON WRIGHT asked whether the giving of stilboestrol early in carcinoma delayed dissemination to the skeleton. It seemed that such dissemination was the fatal part of the disease. He had tried stilboestrol in two cases of seminoma without any good result.

Prof. DODDS, replying to a question as to the relative value of intravenous and oral administration of stilboestrol, said that he could see no evidence why stilboestrol should not be given by mouth. There was ample evidence that it was absorbed completely and acted quickly. To carry out Mr. Ogier Ward's suggestion of radio-activating stilboestrol would involve a most formidable procedure, but, notwithstanding this, it was one of the important things which should be done.

LUPUS VULGARIS TREATED WITH CALCIFEROL

At two recent meetings of the Section of Dermatology of the Royal Society of Medicine Dr. G. B. DOWLING and Dr. E. W. PROSSER THOMAS demonstrated some cases of lupus vulgaris treated with near-toxic doses of calciferol. They started this treatment in 1943 at St. Thomas's Hospital. These cases were shown because of the startling response to the oral administration of calciferol. These workers now have records of 38 lupus patients who are being treated exclusively with calciferol or are under observation after cessation of treatment. A small number of these have been treated in the past with *x* rays, and in them it has not been possible to assess results. In the rest there has been demonstrable improvement in all, a marked regression in the majority, and in about a dozen cases a total disappearance of the lupus. One patient was treated in 1943 and early in 1944; treatment was stopped eighteen months ago and cure apparently has been complete. A report will appear in the December issue of the *Proceedings of the Royal Society of Medicine*, and a further account in a later issue.

The Chelsea Clinical Society held a successful reopening dinner at the South Kensington Hotel on Dec. 11. The President, Dr. Desmond MacManus, paid compliments to the secretaries and treasurer for managing to arrange such a reunion in these difficult times, and welcomed the large number of old members present. He paid tribute to the many who had died or fallen on active service since his installation as president in 1939. Referring to the present unsatisfactory and unknown status of medical practice he said that the Minister of Health should be called upon to "put the cards on the table." Sir Ernest Rock Carling then delivered an extremely interesting survey of Soviet medicine as a result of his experiences in Russia during the war.

Correspondence

Hospital Service Plan

SIR,—One of the many difficulties with which doctors, and in particular general practitioners, are faced from time to time is that of assessing a patient's capacity to pay for treatment by consultants and specialists. Should a patient be recommended for free hospital treatment, including the gratuitous service of the consultants and specialists who will render it?

Many patients themselves find difficulty in deciding whether they should seek to enter the general wards of a hospital or whether their financial position really enables them to follow the course they prefer and to obtain treatment under private or semi-private conditions, and sometimes they are not as helpful as they might be in indicating the true position. These difficulties would to a large extent be solved if the Hospital Service Plan, established some three years ago under the auspices of King Edward's Hospital Fund, were more widely known. Its object is to enable the public by insurance arrangements to make provision for hospital pay-ward and nursing-home expenses, including fees for medical, surgical, and other services incidental to in-patient treatment.

We believe that doctors in the London area could help themselves and their professional colleagues by making more widely known the provisions of this excellent plan. Literature is available from the offices at 10, Old Jewry, E.C.2 (Clerkenwell 7261–2), and any inquiry at that address will be welcome.—We are, etc.,

HUGH LETT,
W. RUSSELL BRAIN,
Medical Members, Council of Management,
The London Association for Hospital Services Limited.

10, Old Jewry, E.C.2.

The Proposed National Health Service

SIR,—Perhaps you will allow me to comment on Principle III, by far the most essential requirement in the excellent statement issued by the Negotiating Committee. "III. The citizen should be free to choose his or her family doctor, to choose, in addition, in consultation with his family doctor, the hospital at which he should be treated, and free to decide whether he avails himself of the public service or obtains independently the medical service he needs."

Mr. Willink, then Minister of Health, in his opening speech in the House (March 16, 1944) answering a direct question from myself, admitted that the power of directing the newly qualified doctor to the public service for an unspecified period of years was "with exceptions" reserved by the proposals of the White Paper. As you point out in your leader (*Journal*, Dec. 15, p. 851) the present Minister's prohibition of the sale of practices is obviously dictated by the Government's intention to "direct medical labour." Principle III, as it appears in the statement, has, I submit, the disadvantage of being ambiguous, more particularly as regards the "freedom" of obtaining medical attention independently of the State medical service. Unless it is made perfectly clear that the patient who wishes to choose his own doctor and pay for his services will not at the same time be obliged to contribute the compulsory levy exacted under the National Insurance Bill, the "freedom" which Principle III demands is illusory.

Repeated efforts have been made in Parliament (and have failed) to obtain some official estimate of the approximate amount which will be payable under the compulsory levy cited. The Minister's statement in the debate (March, 1944) revealed that the direct insurance contribution was only a quarter of the cost of the services to be provided; the remaining three-quarters was to be furnished in equal quotas from rates and taxes, respectively. The ultimate exaction has been computed by independent experts as reaching a total of something like 12s. to 16s. per week, progressively increasing with the lapse of years.

The effect of this economic compulsion was discerned and openly admitted by one of the clearest thinkers on the Socialist front bench; Mr. Pethick-Lawrence, as he then was, described the middle-class man as taking the position: "I do not want to send my children to the elementary school, but to a special school where they will get better education. I do not want to go to the panel doctor, but I will have a special doctor and pay his fees, because I think I will get better attention," and he rejoiced in the conviction that this will no longer be possible. He pointed out (*Hansard*, April 25, 1945) that the middle classes, which have hitherto "disdained the public services for themselves in health and for their children in health and education," will be compelled by economic pressure to abandon these practices, so uncomfortably hindering the achievement of a "one-class society," which is the goal of the doctrinaire Socialist. It is interesting in this connexion to note that that pillar of his party, the Foreign Secretary, has been wise enough to take his own doctor with him to Moscow!

Another consideration which, in my submission, still further nullifies the effect of Principle III as worded is the probability, if not the certainty, that the enforcement of a health service covering a 100% population must eventually force the independent doctor out of practice—a consummation explicitly foreseen by Sir William Beveridge, who must be accepted as the "onlie begetter" of the White Paper. I submit, Sir, that under these proposals the citizen, while ostensibly free to choose an independent doctor, will be unable to pay both the compulsory levy and private fees, and eventually there will be no independent doctor whom he can choose.—I am, etc.,

House of Commons. E. GRAHAM-LITTLE.

SIR,—With the bulk of the Dec. 15 leader most of us no doubt will be in agreement: on one point, however, many of us disagree. I suggest that a clear distinction be drawn between Ministerial direction of the young doctor to practise in a particular locality—to be fought with determination—and a prohibition from doing so on the grounds that the region is adequately supplied already, which I suggest is fair and reasonable. In normal peacetime conditions there were towns with more doctors than were really necessary, and to pretend otherwise is humbug. If, as seems probable, we are to stand up to a Government with the majority of the present one, let us be sure of our ground, bearing in mind that for a long time now we have had a "bad Press" except from the organs of the extreme Right.—I am, etc.,

Crowborough. ARTHUR G. WINTER.

"A Fundamental Principle"

SIR,—I do not wish to debate the other clauses in the pronouncement on "fundamental principles" which appears in the front page of the *Journal* of Dec. 15, and with parts of which I am in close agreement. Clause VI, however, cannot be allowed to pass without comment. It states: "Doctors should, like other workers, be free to choose the form, place, and type of work they prefer without Government or other direction."

I can see no other interpretation of this than that the Negotiating Committee desires that the oldest of our social services shall claim the right to perpetuate a state of affairs in which the under-privileged and under-doctored sections of the community must remain inadequately served. The present unfair distribution of medical skill and man-power is well known. It is the duty of the Government in the modern State to ensure that the people have, as nearly as possible, equal opportunities in matters relating to their health and the treatment of their sickness. There is no other answer to the problem of distribution than some measure of direction.

The medical profession can justly claim for its members that conditions of work and service should be the best possible, wherever and for whatever period they are appointed to serve, but (when the two do not coincide) the people's need must surely come before the doctor's wish.—I am, etc.,

Oxford. JOHN A. RYLE.

*** With all respect to Prof. Ryle, we cannot agree that a solution to the problem is to be found by removing doctors from a place well supplied with them to a place not so well supplied. The remedy is to increase the number of doctors, and one way of doing this is to make medicine an attractive profession to follow.—ED., *B.M.J.*

Surgical Catgut

SIR,—There has been much correspondence about the defective qualities of British surgical catgut. There has been and there may be still catgut of British manufacture of poor quality, but this state of affairs also applies to surgical catgut produced in all other countries, including America. Some years ago Prof. Bulloch showed there was at least one catgut produced in this country which was above reproach as regards sterility and tensile strength. Dr. Clock of New York, from whom I have a personal communication, has shown from the most exhaustive researches that every country produces infected catgut as well as sterile catgut.

In fairness to the home product I for one would like to state that I have both, before and during the war, used "London Hospital" catgut to my and to the patients' entire satisfaction, and I consider that it compares very favourably with the best catgut produced by any American firm.—I am, etc.,

Hove, Sussex. G. W. BERESFORD.

SIR,—I have refrained so far from taking part in the controversy aroused by the letter from my old friend, Mr. John Hosford (Nov. 10, p. 668), because his criticisms of British surgical catgut dealt with variations in the tensile strength and gauge for which standards are not prescribed in the Therapeutic Substances Regulations which are administered by the Ministry of Health as licensing authority. However, in your issue of Dec. 1 (p. 784) Mr. H. J. McCurrich brings other charges against catgut manufactured by British firms, and these charges do concern the Regulations I have mentioned, and with which I have been intimately connected since 1928. I made a special study of the manufacture of surgical catgut preparatory to the addition of this substance to the Schedule to the Therapeutic Substances Act in 1930, and I have inspected its manufacture not only by all the licensees in this country but in many factories abroad who used to import their catgut here before the war. I am therefore in a position to contradict several statements made by Mr. McCurrich.

(1) He says that sterility varies tremendously. All batches of catgut are tested for sterility by, or on behalf of, the manufacturers before issue by duly qualified persons approved by this Ministry, and from time to time an independent "sweep" is made by us.

(2) He says he believes that the raw material for making catgut in this country is all imported. This is quite untrue. Probably the best "casings" in the world come from Scotland, and this country actually exports raw catgut abroad.

(3) He makes the general statement that "most of the chromicizing is unreliable." Though, as I have said, this quality is not standardized under the T.S.A., yet I have every reason to doubt this statement, and in any case I am surprised to hear that Mr. McCurrich is in a position to obtain data to support such a sweeping statement.

The other points have, I think, mostly been dealt with by your other correspondents, but in conclusion I would suggest that it is most deplorable that British surgeons should, on insufficient evidence, attack a British industry which I have found to be most progressive and co-operative and which I have every reason to believe has established a fine reputation in the world at large.—I am, etc.,

Ministry of Health, W.1. WELDON DALRYMPLE-CHAMPNEYS.

SIR,—Mr. J. Hosford's letter (Nov. 10, p. 668), by challenging the manufacturers of British catgut to turn out a uniform product, will do good to a point. It will stimulate them to work in accurate conformity with the American standards and sizes of catgut, which they have recently adopted. I have no doubt that before the market can be inundated by our Allies' sutures, our manufacturers will be offering us a ligature, smooth or rough, hard or soft, black or white, according to individual surgeons' wishes.

Mr. Hosford is right when he mentions the variability of catgut at present, but we have to remember that hospitals carry large stocks of catgut, and that it takes a long time for the new products in all sizes to appear at the operating table. Some sizes are consumed quicker than others, and therefore these will appear to be the same as other grades in the older batches. For instance, at one hospital they still have Davis and Geck's atraumatic needles; at others they have one maker's curved atraumatic and another manufacturer's straight atraumatic, and another maker's chromic and another firm's non-chromic. In the war years hospitals have had to take what was available. The feeling of exasperation caused is obvious. The makers have had to make do with short, inexperienced staffs and with material difficulties. It is necessary, therefore, before damning British catgut wholesale to look all round the situation. We must decline the temptation to develop an attitude of rejecting British catgut and demanding the American product as the only dependable catgut. In point of fact, the position is only a facet of the universal difficulties that the upheaval of the war has made.

Time, persistence, and encouragement will correct the situation. I am sure that the British genius for precision and production of a superlative product will show in our catgut as in other departments of our national industry.—I am, etc.,

London, W.1. HAROLD DODD.

Surgery in West Africa

SIR,—I read with great interest Mr. J. K. Willson-Pepper's impressions of surgery in West Africa (Dec. 8, p. 812), having myself served for two years as surgical specialist to a military hospital in Freetown during the war. I agree emphatically with his views on the unsatisfactory results which are obtained with the closed-plaster treatment of infected compound fractures in the Tropics, and also with his views on the healing of surgically inflicted wounds. With regard to the latter, however, the reluctance which has existed to do "clean cold operations" on Europeans in hot climates is very understandable, since infection, if it does occur, is generally fulminating in type. In the only case of my own in which this complication arose (a saphenous vein ligation) the infection responded rapidly to sulphonamide therapy; but had the case occurred in the pre-sulphonamide era the situation might have become extremely serious. I feel, in fact, that it is only since the introduction of these drugs that non-urgent surgery upon Europeans has become justifiable in the Tropics.

I do not agree with Mr. Willson-Pepper's condemnation of occlusive dressings for clean surgical wounds. I always used a small gauze dressing firmly sealed in place with "elastoplast." This did not, in my experience, lead to any "sogginess" from retained moisture, and was a valuable safeguard against post-operative contamination.

Finally, I do not think a surgeon proceeding to the Tropics can be too strongly warned of the possibility of encountering patients suffering from two major conditions at the same time. A case of retention of urine due to enlarged prostate in a merchant seaman who developed cerebral malaria, a case of acute appendicitis with fulminating pulmonary tuberculosis, and another patient with acute appendicitis who was found also to have an amoebic abscess of the liver were three striking examples of this state of affairs in my short experience of tropical surgery.—I am, etc.,

Winchester. CUTHBERT ROBERTS.

Treatment of Varicose Ulcers

SIR,—I read Dr. Brooks's letter (Dec. 8, p. 816) with some alarm. I cannot but think that his suggestions are retrogressive. I had the privilege of learning the treatment of varicose ulcers under Mr. Dickson Wright when the "elastoplast" technique was introduced. There are three fundamentals in the treatment of a varicose ulcer: first the injection of the sentinel vein; secondly, the removal of oedema: without this, healing cannot occur; thirdly, any pressure applied for this purpose must be graduated from the foot upwards. Healing need not take months; our average rate of healing was one square centimetre per week, and an ulcer of sixteen square centimetres is a very considerable ulcer. In many of the ulcers we had to deal with the bone was actually exposed in the ulcer floor.

As regards leaving the bandage on, I saw one woman with an extensive ulcer of about eighteen square centimetres and applied an elastic adhesive bandage. She was on a barge and I did not see her for six months. When she returned, admittedly the bandage, my original application, was sodden and offensive—very offensive—but when removed there was no sign of the ulcer. I think the treatment suggested by your correspondent

must refer to very small ulcers. I would like to point out to anyone following his example that the use of sulphonamides as suggested is dangerous.

In conclusion, how many people can find the two hours required to elevate the limbs? I think the "elastoplast" technique is not yet to be replaced.—I am, etc.,

Eccleshall, Staffs. C. GLYNNE OWEN.

SIR,—After reading Dr. R. K. Brooks's interesting letter I cannot help feeling that too little credit has been given to the elastic adhesive bandage, and that the main physical elements in the treatment have been rather side-tracked in favour of the healing action of certain chemical substances. I tried to treat varicose ulcers considerably prior to the elastoplast era, making use of various local applications, supporting strapping, etc., with the poorest possible results, though it was clearly recognized that, if the patients had been able to rest in bed with the load taken off the saphena venous system, steady healing usually occurred, the nature of the dressing, so long as it was suitable for the surgical condition, not making much difference.

The cure of these ulcers is much facilitated by two main factors of vital importance—namely: (1) rest of the ulcerated surface by the most infrequent interference; (2) support of the saphena venous system either by rest in bed or by support from without by suitable bandaging. The practical application is as follows.

Rest in Bed.—Here the load is taken off the venous system, and if the ulcer is very large and foul this method may be a necessity. The nature of the dressing is not of primary importance. Eusol is suitable, especially if the ulcer is very foul; flavine may be substituted, and tulle gras, preferably made up with sulphathiazole 5%, has the advantage that the dressing need not be so frequently changed. The healing of the ulcer under the plaster case mentioned by Dr. Brooks is a good example of the working of this principle, together with non-interference and rest of the ulcerated surface, though, by inference, he appears to have been surprised at the result, if the remark in brackets, "taking a tremendous risk," is intended seriously.

Elastic Adhesive Bandages.—Both healing principles are in action in this method, which is the one of choice in the treatment of ulcers of moderate size and in those which have decreased to a manageable size by rest in bed. The most suitable cases are those in which the affected area has not become adherent to the tibial periosteum. The bandaging must, however, be very carefully carried out, and in the case of several apparent failures which have come under my notice there were obvious faults in technique. The ulcer and surrounding skin should first be cleaned up, not too severely, with soap and water, dried, swabbed with industrial alcohol followed by methylated ether. The ulcer is then covered completely with a single strip of the bandage of suitable width. This should extend well above the ulcer, and can be taken round the instep as a stirrup and a short distance up the other side of the leg. Absence of "rucking" and close adherence to the surface are vital, the object being to protect the ulcer from direct contact with the turns of bandage. The bandage is then applied from the roots of the toes upwards in firm even turns, the greatest care being taken to prevent any rucking, since this is liable to cause abrasions or sometimes even ulceration on its own account. As much as possible of the parts adjoining the heel should be covered, as can be done by the use of a simple figure-of-eight bandage, and the turns should be taken as high up the leg as possible—at any rate considerably above the upper limit of the ulcer. For a large leg a 3-inch bandage should be used; for a small one a 2½-inch should suffice. It is of importance that the bandage should be in good condition and easy to unwind during application. If it is old or has been kept in a warm place the coils become irregularly adherent so that the combined efforts of surgeon, patient, and any attendant may be necessary to assist in the unwinding, and this is pretty sure to result in adherent puckers and creases, and application with even pressure is impossible.

When the bandage is applied the patient can be encouraged to carry on his usual work; no rest with legs elevated during the day is really necessary, and there are no dressings to worry him. The first bandage can be kept on for a week. Even in cases where there has previously been free discharge this is usually so much reduced that very little, or even none at all, will have soaked through by the end of this period, and any pain which may have been present usually passes off, sometimes with dramatic suddenness. Even if the soiled part of the bandage becomes offensive—an occurrence which I have found very uncommon, though there may be a certain sourness—its removal should not be too hastily considered so long as the patient's health is good and pain not increasing. When the bandage is cut off it will usually be found that the ulcer is smaller, with a good broad pale-blue healing edge; the surrounding skin may be a little sodden with discharge, but this does not appear to do any harm. The ulcer and skin are cleaned and a second bandage applied which, under favourable circumstances, can be kept on for a fortnight or more, the process being repeated until the ulcer is healed. On an average three bandages suffice.

One of the criteria of success is the relief of pain, which, as stated above, may be rapid. If, however, the pain increases the bandage is best removed. Under these circumstances a trial may be made of a "viscopaste" bandage, but I have had little success with this either in such cases or where it was applied in the first instance.

In some cases, apart from the failures mentioned above, the patient may be intolerent or even fearful of "tight bandaging" of his leg, and if he cannot go to bed other methods become necessary. This is the domain of Dr. Brooks, and I look forward to the trial of some of the methods he has evolved. I have had the best results in such cases with sulphanilamide tulle, a good crêpe bandage, firmly applied with the patient's leg elevated, being an essential part of the treatment. The appropriate treatment of the veins has to be considered either after the healing of the ulcer or else as part of its management, but this is beyond the scope of this letter.—I am, etc.,

Rustington, Sussex. W. E. WALLER.

SIR,—The treatment of varicose ulcers has interested me for some time, since, as a student, I saw at the clinics old ladies' legs stuck up horizontally and every known antiseptic applied to them. I have recently been interested in a method that I got from Dr. Eastman Sheehan, who used it for old infected burns of the limbs. I coagulate the surface of the ulcer with silver nitrate pencil and then with a scalpel cut off the coagulated area. This, I believe, removes all the infection from the base of the ulcer, and on several occasions when I have swabbed the base after excision it has been sterile or almost so. I then apply a Thiersch graft from the medial aspect of the thigh, cut up into small pieces the size of postage stamps. This is covered by flavine wool and a crêpe bandage.

I have not yet done enough cases to write up a series, but the six or seven I have treated, which were of an extremely chronic nature, have all responded admirably and healed within a month.—I am, etc.,

Beverley Emergency Hospital, Yorks. R. CROSBIE WALSH, R.S.O., Orthopaedic Department.

Morphine as a Prophylactic for Ileus

SIR,—As one who has taken a close clinical interest in the action of morphine in this condition I think it necessary to make some reply to the letter of Prof. J. H. Burn (Dec. 8, p. 817). The statement made that "surely there is no justification for the use of morphine as a prophylactic against ileus" is not tenable either on the work of those he quotes or on clinical experience. The experimental work quoted mainly appeared after I wrote on the action of morphine in peritonitis (*Brit. J. Surg.*, 1932, **19**, 634), and what I knew of it spurred me to further observation. To me it was obvious that the findings when an intestine, divorced from sympathetic grip, came under morphine influence were quite different from those when that same grip was there. Intrinsically it is perhaps not different, but the clinical results differ in almost exactly the same degree as action of the ileus-ridden bowel differs from the unfettered action of a normal bowel. It is this situation that awaits laboratory verification. Once you have intrinsic and extrinsic influences interlinked in a single active syndrome the clinical results of various drugs appear to run contrary to expectation. It is surely less than half a truth to say that the action of a drug in one situation must be identically the same in a different one. My own belief in morphine, not as a specific but as an almost essential adjunct in the treatment of ileus, remains unshaken.—I am, etc.,

The Royal Infirmary, Dundee. JOHN J. ROBB.

Shock and Open Ether

SIR,—In Memorandum 9/1943 of the Department of Health for Scotland, Feb. 2, 1943, on "Anaesthesia for the Shocked Patient," we read: "The use of ether on an open mask and of Clover's apparatus is undesirable." This was the opinion of the Anaesthetics Subcommittee of the M.R.C. Committee on Traumatic Shock.

Some of us, possibly a minority, are of the opinion that open ether is the method of choice in these cases. Our view has been

strengthened by the fact that open ether canot now be condemned as presenting to the patient a cold vapour for inhalation (*vide* "General Anaesthesia and the Temperature of Inhaled Gases," *Journal*, Nov. 10, p. 646). What, then, are its objectionable features? The toxicity of ether is stressed as one of these, but this is not peculiar to the open method of administration. This method, moreover, offers excellent facilities for that constant and accurate observation of the patient which is so essential if he is to receive the minimum dose of the toxin. The ocular reflexes afford an accurate guide to the depth of the anaesthesia. Close-fitting face-pieces with various types of harness, modified gas-masks, and many other contraptions now in use effectually deprive the administrator of these facilities. Their use may, indeed, cause a considerable disturbance of the intraocular tension. Drs. Ina and J. G. C. Brittain (March 31, p. 442) describe thirteen cases of unilateral hypotony following anaesthesia in a series of three hundred cases, the aetiological factor being the pressure exerted by the rim of a badly adjusted face-mask. The danger of causing harm to the cornea in eliciting this sensitive reflex is mentioned in every textbook. I have tested the sensitivity of the cornea and demonstrated the method of doing so many thousands of times and have not once heard of harm resulting therefrom. A light uniform open-ether anaesthesia with a sensitive cornea suffices for practically all operations on the extremities. When abdominal muscular relaxation is required the corneal reflex is lost and the size of the pupil then becomes a reliable guide. No form of premedication interferes with the paralytic dilatation of the pupil associated with a profound and dangerous depth of anaesthesia.

Open ether interferes less than any other method with the normal composition of the gases in the pulmonary alveoli. When indicated, extra oxygen and/or carbon dioxide, picking up a little ether vapour from an ether bottle, can be easily delivered into the mixture of air-and-ether vapour inhaled by the patient. The anaesthesia can be lightened or deepened easily and quickly and immediate advantage taken of periods free from surgical stimuli.

If nitrous oxide is administered with more than 20% oxygen it has no anaesthetic effect. Why use it as a vehicle for the ether vapour when the patient's condition is demanding more oxygen? If gas, oxygen, and ether vapour are being administered and the resulting anaesthesia is without cyanosis and yet deep enough to obtain abdominal relaxation, let the administrator shut off the gas and turn on the corresponding extra litres of oxygen. The anaesthesia does not become lighter.

The closed-circuit method leads to a definite change in the composition of the alveolar gases, and we do not know that this is free from harm. I am quite willing to breathe for an hour through a mask such as is used for open ether. Would the advocate of the closed-circuit method as readily submit himself to a similar experiment? So far as I know this has never been done, but the experience might be of some value. The surgeon appreciates the reduction in amplitude of the respiratory excursions when the closed circuit is used. Shock, however, is associated with a falling-off of the venous return to the right side of the heart, and an efficient venous return is dependent upon the movements of respiration.

The Anaesthetics Subcommittee had no easy task in formulating their recommendations regarding anaesthesia for the shocked patient. One agrees with them that "almost equally good results are obtained by experts using widely different agents and methods," but I am not alone in regretting their condemnation of open ether. As for chloroform, the majority in Scotland at least would definitely not agree with the committee's opinion that "in the hands of an expert chloroform may be satisfactory."—I am, etc.,

Dundee. ARTHUR MILLS.

Spinal Analgesia in Operative Obstetrics

SIR,—Dr. Louis Resnick's article (Nov. 24, p. 722) prompts me to add a little of our experience at University College Hospital.

A very small series of Caesarean sections has been carried out under epidural or extradural analgesia in selected cases. This method produces operative conditions similar to those given by a spinal, with less risk to mother and child, but it is undoubtedly more time-consuming and requires a careful technique. The solution used is 40 to 45 c.cm. of 1 in 600 nupercaine in half-normal saline, and this is slowly injected between L 2 and L 3 into the epidural space, with rigid adherence to all technical precautions. It takes 20 minutes to produce analgesia to D 10. Many patients showed no fall in B.P., and in those who did it was readily controlled by ephedrine 1/2 gr. I.V. and 1/2 gr. I.M., since the fall is not as rapid or precipitous as with a spinal.

There are fewer unpleasant post-operative sequelae with epidural analgesia as compared with spinals; in fact we have had none except vomiting, which has been almost negligible. The main advantages of epidural analgesia over spinal are: (1) Fall in B.P. is not so great or so sudden, and in some patients no drop occurs. (2) No loss of motor power occurs, so that the patients can immediately move about in bed. There is no intercostal paralysis. (3) Prolonged freedom from pain post-operatively, lasting up to 12 hours, diminishes the amount of drugs required. (4) The subarachnoid space is not entered, thereby excluding the liability to headache and damage to the cord. Since the epidural space ends at the foramen magnum the higher centres cannot be reached by the analgesic solution.

However, our experience has indicated that patients with extreme hyper- or hypo-tension and acute cardiac disease did in some instances show rather severe falls in B.P., and though these always proved controllable we feel it is taking too great a risk in such cases to employ this form of analgesia. It has, however, proved ideal in other conditions where general anaesthesia is contraindicated.

A paper describing this method in detail is to be published in the January number of the *British Journal of Anaesthetics*.—I am, etc.,

University College Hospital, W.C.1. DOREEN M. E. CRANCH.

SIR,—While spinal analgesia in obstetrics has some theoretical disadvantages expressed by some of your correspondents, its use in fact leads one to think that the dangers have been exaggerated. There are, on the other hand, some definite practical advantages of the method.

I have now used a low spinal analgesic in 50 cases of vaginal manipulation, chiefly for forceps delivery. The solution used is "planocaine" 0.75 g. accompanied by ephedrine 0.05 g. Seat analgesia only is the aim, and the patient can often assist to put her feet in the lithotomy straps. In two cases, both of highly excitable women, the analgesia (or rather sedation) was not sufficient and was supplemented by gas-and-oxygen and by a few drops of chloroform respectively. In one case only the woman complained of a headache badly enough to have it reported to me. In one there was transient paresis of the left external rectus muscle attributed to the analgesic. Otherwise the series has been without incident so far as the analgesic was concerned. In no case has the post-partum loss exceeded 20 oz.

Many women have expressed their appreciation of being, so to speak, present at the birth of their children. It seems an important point not to deprive a woman of her due physiological experience more than is necessary for her comfort. There are several small technical advantages to the operator; for instance, the question of whether to repair the perineum before delivering the placenta for the sake of not prolonging the anaesthetic does not arise. Also the nursing staff appear to appreciate the speed and lack of fuss of the proceeding. The greatest disadvantage of the method seems to be its unsuitability for domiciliary midwifery.

I should like to express my thanks to Dr. Resnick for giving a lead in this interesting and, I am sure, valuable procedure.—I am, etc.,

Hertford. B. J. CLYMO.

Sulphonamide Therapy by the Midwife

SIR,—I believe it is becoming a common practice when suturing a perineum to apply sulphanilamide powder. To omit to do so is to leave room for self-reproach in the odd case which becomes complicated by sepsis, so that I, for one, always use it. I find that if I apply the powder immediately before the operation the field tends to be obscured, while to apply it after the operation savours of black magic. Being unable to answer immediately a recent call to a torn perineum, I sent some powder for the midwife to apply, and when I came to do the repair

an hour later I found that the interval was a great advantage. This leads me to the view that it would be a good idea for the midwife to carry the powder and to apply it as soon as labour is ended, so that an interval between its application and the repair operation could be assured. I had thought of suggesting this to the local authority here, but I read that the Central Midwives Board has circularized local supervising authorities to the effect that it considers that drugs of the sulphonamide group should not be administered by a midwife except on specific instructions of a medical practitioner.

It would be interesting to hear the views of others on this question. Is my suggestion a sound one? Would this use of sulphanilamide be "administering" within the meaning of the C.M.B.'s present ruling? A C.M.B. ruling to ensure that midwives did not believe the powder could replace suturing would, of course, be necessary.—I am, etc.,

West Bromwich. D. SAKLATVALA.

The Flour in the Bread

SIR,—In the article "Whose Loaf?" (Dec. 15, p. 853) you advocate the use of bread made from flour in which natural products are retained in the process of milling; and you seek to reinforce your argument by telling us that "for approximately 6,000 years man's taste was not offended by the whole wheat grain." This is undoubtedly true, but it certainly does not follow that man's taste is not offended by the very different bread we get now. Man's tastes change, although, admittedly, they can revert to their earlier state; but I, for one, should mourn the passing of the croissants and brioches so admirably prepared by the French, whose state of nutrition in the days of peace was, I imagine, at least as good as that of the inhabitants of the Nile Valley.

If we as doctors are to be consistent in our demand for freedom we must at least give to our patients, who are the general public, the right to choose whether to have brown bread, white bread, or the present dun-coloured product. Force, whether physical or legislative, is not one of the weapons of medicine.—I am, etc.,

London, W.1. A. PINEY.

*** We advocated not force but propaganda, a word with several shades of meaning but in this instance implying education. The public is, after all, protected by legislation against the adulteration of food, and we hope it will in time be protected against infected milk, however much it might prefer to have the milk straight from the cow.—ED., *B.M.J.*

The Westergren E.S.R. Technique

SIR,—The letter of Drs. D. G. McIntosh and D. M. Keay (Oct. 27, p. 584) had the superficial appearance of being very comprehensive; it is rather reminiscent of the letters to which it refers—those that were in the *Journal* following Della Vida's article in 1942—and like those letters it touches on too many factors not fully enough. They quote experiments performed in Westergren type tubes, comparing the one-hour reading obtained with the same blood diluted with 1/5 its volume of 3.8% sodium citrate and with Paul and Heller's oxalate mixture. If curves are constructed by plotting five-minute readings of the falling cells it will be seen that the citrated blood usually starts sedimenting before the oxalated sample; then the oxalated blood overtakes and passes the citrated, only to be passed by the citrated blood when packing of the cells sets in. The one-hour reading can occur in any part of these curves, thus explaining their variable results.

Dr. James Kelman (Dec. 8, p. 823) suggests that so long as one method of E.S.R. test is used the results are comparable; while I am thankful to read his balanced letter I must disagree with that statement. He misses the point of Drs. McIntosh and Keay's letter, which damns all E.S.R. determinations for failing to show up early signs of activity in tuberculous subjects. Workers like Dr. V. Cotton-Cornwall (Nov. 24, p. 742) will find that the Westergren readings of 10, and just below, will be missing cases with active tuberculous processes; some of these readings are bound to be occurring in slightly active but plethoric cases, and the Westergren technique, making no allowance for plethora, misses slight (but definite) increases in rate in these cases. Later, someone may again condemn the sedimentation test generally, because Dr. Cotton-Cornwall's Westergren technique fails to show these cases, which can otherwise be proved to be active; the Westergren technique has no definable normal limits.

The E.S.R. test is one that the pathologists will continue to be asked to perform. I consider that the technique employed must be one that eliminates the effects of temperature and other controllable physical factors, and be one that is not too time-consuming. My mathematically minded friends assure me that the Rourke and Ernstene type of test is the best method in which the whole blood is employed, but neither I nor any of my small staff can afford the time necessary to take five-minute readings. I employ the Wintrobe technique, correcting by Whitby and Hyne's graph, and I use a standard temperature of 20° C. obtained by employing the holders that Messrs. Willen Bros. are making for me. If one does not correct out the varying corpuscular volume this test measures both the degree of tissue destruction and the corpuscular volume, and there is no way to sort out the effect of one factor from the other. It is rather like saying, "I have two coins," in answer to the question, "How much money have you?"; whereas a simple examination of the coins will give a more exact answer to the question. I have read three of Mr. R. B. Whittington's papers, and while I admire his work I find that it is not applicable in an understaffed laboratory, and I cannot foresee his technique being employed widely outside very large centres. I have not read the latest of his papers, to which he makes reference (Nov. 24, p. 741), but perhaps he has made the technique easier to use.

When I examined the references given in Drs. McIntosh and Keay's letter I was left with the impression that the authors had not recently referred to the papers they quoted. Many of the authors do not give the method they employed in carrying out the E.S.R., and I am grateful to those authors from whom, on inquiry, I have now learnt the method they used. The summary shows that Young; Edwards *et al.*; Clive; Kahan and Close; Robinson; Abeles and Pinner, and Hilliard all employed the Westergren or a Westergren type of test; Obermer employs even stranger methods, as he thinks a tube in his waistcoat pocket will stay vertical and that it will be at a uniform temperature of 37° C. I have not traced Braeuning's paper; reference to four of Stiehm's articles gives no indication of the E.S.R. method he employs, and unfortunately Dr. Kayne is dead, so I cannot trace the technique he employed. The high percentage of incorrect reference in McIntosh and Keay's letter may be a reflection of the value to be placed on it. Their correction came too late to save my time and that of the librarians at the R.S.M., who helped me to find the correct journals. If their references can be so carelessly collected, then their technique may be equally careless.

Thus we find that the scathing remarks of Drs. McIntosh and Keay are really condemning the Westergren technique. This has served the useful purpose of popularizing the test, which is now proved to be outmoded and needs replacement by a more refined method, and I would suggest the Wintrobe technique.—I am, etc.,

B. ROGERS,
Shotley Bridge, Durham. Area Laboratory Pathologist.

The E.S.R.: "Fourteen Points"

SIR,—The crucial sentence in the letter of Drs. D. G. McIntosh and D. M. Keay (Oct. 27, p. 584) would seem to be: "Dunlop and Dick, using a 200-mm. Westergren tube ... regard as abnormal any reading greater than 5 mm. for the one-hour reading." A year ago, being somewhat confused as to the method of B.S.R. (why not call it "blood" instead of "erythrocyte"?) estimation, I called personally at a well-known London hospital and also at a big provincial one. Both laboratories seemed slightly vague as to their methods and differed a good deal, but I learned something from each. I heard one distinguished physician state positively that the correct method was to take up to 200 mm. of blood-citrate and estimate the fall from that height, while his house-physician insisted that 100 mm. was the right amount, and a laboratory assistant who was called in did not appear to agree with either. It is obvious that the higher the column of blood the greater will be the amount of clear serum to be read off. If you take a column 100 yards high the normal fall will be about 4 yards, whereas if 100 mm. be taken it will be 4 mm.

Dunlop and Dick used 200 mm. and found that up to 5 mm. was normal, then if they had taken 100 mm. they would have found that up to 2½ mm. was normal. The procedure should be strictly standardized and fixed for the benefit of both the G.P. and consultant, so that each, all over the country, should know exactly what the other means.

The glass B.S.R. tubes supplied by instrument makers are usually graduated in millimetres up to 200, the upper 100 of which are redundant and not wanted. A set of three of these tubes can be obtained from Messrs. Down Bros. mounted upright on a stand, each tube being firmly clipped at the top by a metal clip and resting as to the lower end on a depression hollowed in a rubber cork. The background of the wooden stand is white to facilitate visibility. A fine white line should be painted with oil paint round the tube at the level of the 100-mm. mark. Having got so far may I suggest to the busy, and probably tired, G.P. who is inquisitive about, for instance, an early case of Tb., acute rheumatism, or rheumatoid arthritis, that the following procedure, though lengthy in description, may be carried out with a minimum of expenditure of energy and, excluding the hour allotted later to sedimentation, in under five minutes.

1. Draw up 1 c.cm. of 3.8% solution of sodium citrate into his eccentric-nozzled intravenous syringe (or 1/2 c.cm. if he is going to use only 2 c.cm. of blood), and squirt it into the small glass phial supplied by the B.S.R.-set makers with the tubes.
2. Twist something elastic, such as a stomach-pump tube or an old piece of cycle inner tube, round the patient's arm above the elbow, give it a couple of turns, and get the patient to hold the knot thus formed with his other hand.
3. Ask the patient to bend and stretch the arm and fingers to engorge the median basilic (or median cubital, as it is now called) vein.
4. Clean up the vein with ether or spirit, insert the needle, which need not be as big as an intravenous needle, into the vein and withdraw 4 c.cm. (or 2 c.cm. if only 1/2 c.cm. of sodium citrate is being used) of blood.
5. Tell the patient to let go the knot, and swab the puncture with ether-soaked wool after withdrawing the needle.
6. Expel the blood into the phial containing the sodium citrate.
7. You now have your citrated blood safe in your car or at home, but the estimation must be done within 2 hours; if not, some pathologists say that the reading is not accurate. Method:
8. Wet the top of the hollowed rubber cork on which the tube is to stand. If this is not done the blood will run out of the tube at the bottom.
9. Suck up the blood–citrate mixture somewhere above the white line on the tube.
10. Wet a finger of the left hand and set the tube upright on it, thus firmly sealing the bottom end.
11. Wet a finger of the right hand and seal the top end of the tube. If these wettings are not done the blood will run out and you will have to start all over again, as the cut ends of the glass tubes as sold are often jagged and inclined to let in air.
12. Holding the tube upright slightly slacken the apposition of the fingers at both ends to allow gradual air entry and twist the tube with a rotary motion, allowing blood to escape over the lower finger till the column is about 1 mm. above the white line. The top finger being once more firmly applied, the removal of the bottom one means that gravity takes care of the remaining 1 mm. and brings the blood level with the white line. The usual directions to "hold up the tube with the right hand only and release the top finger till the blood reaches the required level" resulted in the blood shooting down to far below the white line, so that I had to start again.
13. Place the tube in the rack, firmly pressing the lower end on to the cavity in the wet cork and clipping the top with the metal clip provided.
14. Note the time, and read off the serum level in exactly one hour, or get someone else to do it and write it down.—I am, etc.,

Stowmarket. H. S. GASKELL.

Stethoscope versus X Rays

SIR,—If there has to be a choice between the stethoscope and *x* rays the latter will always be chosen as giving the greater percentage of definite results in chest diseases. The relative value of each instrument is always discussed in relation to pulmonary tuberculosis, because we know now that there are many cases of this disease which have neither symptoms nor signs for a great part of their course. This does not necessarily mean, however, that the stethoscope is obsolete and that examination with this instrument is only a gesture. Pulmonary tuberculosis is still a formidable disease, and in dealing with it every aid is required. We should not voluntarily discard something which, in some cases, gives us more information than *x* rays. Reliance on radiological appearances alone does lead to cases of pulmonary tuberculosis being regarded as quiescent, when stethoscopic and sputum examinations show such a view to be erroneous, and early breaking down of a lesion can often be heard before radiological signs appear, unless tomograms are resorted to. Used with a knowledge of its limitations the stethoscope can be a valuable aid and is easier to carry than an *x*-ray machine.—I am, etc.,

Penmaenmawr. R. GRENVILLE-MATHERS.

Radiology and Pyloric Stenosis

SIR,—With approaching 25 years' radiological experience I have seen many cases of juvenile hypertrophic stenosis. Oesophageal spasm in adults is sufficiently common that, when oesophageal cases are referred to me as a matter of routine, I ask that the patient be put under the influence of atropine or belladonna before he attends for examination, to eliminate spastic cases. The following case, recently examined, of a pyloric spasm which for some hours caused practically complete pyloric stenosis is, however, new to me and may be of general interest, besides proving the necessity for systematic timed serial films.

The patient, aged 56 years, had no abdominal history generally, but in 1940 and 1941 had single attacks of oesophageal spasm and inability to swallow, in each case rapidly cured by medicine (apparently an antispasmodic). There was no other abdominal history until seven weeks before my examination, when there were several attacks of vomiting, retching, no pain even of mild type, but slight jaundice. She was referred to me as most probably a case of carcinoma of the stomach.

On giving the meal, which was taken without undue difficulty, there was practically complete pyloric stenosis as commonly found with pyloric ulcer of long standing or carcinoma of perhaps short history. There was no tenderness to palpation. According to routine, however, and fortunately, the meal was followed through, and at one and at two hours after the meal examinations still showed practically complete stenosis. At four hours after the meal it had commenced to pass into the colon, but was still much delayed. At six hours after the meal the stomach and duodenum had practically emptied in normal time. Had the examination been terminated at any time up to two hours after the meal the diagnosis would have been complete pyloric stenosis, with preference, by the palpation characteristics, short history, etc., to neoplasm rather than benign ulcer as the cause. Had the examination been so curtailed operation would probably have been performed with a negative finding.

I have never experienced a similar case, though as a routine the patient is always examined at 6 and usually 24 hours. Probably this routine procedure is the reason why I have never had my report of complete stenosis questioned after operation, though the "probability" diagnosis between benign and neoplastic cause has been found defective.—I am, etc.,

Forest Gate, E.7. BERNARD LEGGETT.

Surface-marking the Lower Border of the Liver

SIR,—I was very much surprised to learn that the following method has been in general use in Poland and among the Russians for many years without, apparently, finding a place in the clinical teaching at home. Its very great precision and ease and lack of dubiety would certainly seem to recommend it for such a place. It is an auscultatory method, and for those to whom it is new, like myself, it is as follows.

The chest-piece of the stethoscope is placed on the epigastrium over the left lobe of the liver, high up in the intercostal angle. The tip of the left index finger is now, from any point on the right costal margin, brought down vertically over the abdominal wall with a light stroking movement of the skin. While the finger is being applied over the organ a loud rubbing noise is very clearly heard. Once the edge is reached the very abrupt and deathly silence leaves no doubt in the matter. Repetition from different points along the costal margin downwards will pin-point the lower border to within a few millimetres.

To one who very often tends to be "baffled" by a soft and flabby organ and a thick layer of adipose tissue the ease and accuracy of the method come as a revelation and a relief. My

thanks are due to Dr. Szyfman, of Lodz, at present working in P.W.X. hospitals in Germany, who introduced it to me.—I am, etc.,

R. P. GILLESPIE,
Capt., R.A.M.C.

B.A.O.R.

National Research into Tuberculosis

SIR,—I want to endorse the appeal by Dr. George Luntz (Dec. 1, p. 781) for national research into tuberculosis. This is to-day urgently needed, with special reference to prevention and control as soon as infection by the tubercle bacillus is found to have occurred. To make a real fresh start in any national effort to control tuberculosis the Ministry of Health should at once make it a penal offence for anyone to sell or give away to any person for human consumption milk containing living germs of tuberculosis. This step would prevent cases of surgical tuberculosis of bovine origin. By this one step the Ministry would save many thousands of children from suffering from very often permanent deformity, with ill-health and pain, and, in many cases, ending in death.

In 1943 there were probably some 1,200 deaths due to bovine infection. In the same year some 14,000 new cases of non-pulmonary tuberculosis were notified, and it is also probable that of that number some 4,000 were due to bovine infection. The Ministry should ask the Medical Research Council at once to determine to what the natural resistance to infection by the tubercle bacillus is due, and how this resistance can be built up in those individuals who lack it and so solve this problem of immunity as regards tuberculosis. Work has been carried out by the Americans on the liability to infection, and in the *Journal* there is that statement that children at Papworth are growing up free from clinical tuberculosis even where the danger of massive infection is potentially present. As it was stated in the *Lancet* of Oct. 20 (p. 498), "Our knowledge of pulmonary tuberculosis is fragmentary."—I am, etc.,

SYDNEY GORDON TIPPETT.

Horsham.

Temperature and Descent of the Testis

SIR,—Dr. W. N. Leak, in his comments (Nov. 17, p. 704) on my article on descent of the testis in relation to temperature raises the question of method of descent. This I had not considered.

Up to the last fifteen years most observers supported the view that the process of migration was due to a combination of two factors—increased intra-abdominal pressure consequent upon the enclosure of the intestines in the abdomen and traction by the gubernaculum. The attachment of the testicle to the scrotal wall in the newborn infant is very slight (Hunter, R. H.., *Brit. J. Surg.*, 1927, **14**, 125), and even if it were firmly attached the scrotum would surely be pulled up to the testicle rather than the latter down to it, if contraction occurred.

Halban, J. (*Z. Geburtsh. Gynäk.*, 1904, **53**, 191) described the swelling and turgidity of the scrotum and labia which occurs in newborn infants, and attributed this to a then hypothetical secretion of the placenta. The arguments were convincing, but the active principles involved were not made clear until the female sex hormones were demonstrated in the blood and placenta of pregnant women by Frank, R. I., and Golderberger, M. A. (*Amer. J. Obstet. Gynec.*, 1926, **12**, 585), and the presence of an anterior-lobe-like substance was demonstrated by Aschheim, S., and Zondek, B. (*Klin. Wschr.*, 1928, **7**, 1404). Barry, D. T. (*J. Anat. Lond.*, 1910, **44**, 137) observed that the rete testis in embryos had a better relative blood supply than the rest of the testis. He also noted that its size and vascularity were increased in animals which mature quickly, such as ruminants, when compared with the more slowly developing colt.

Schapiro, B. (*Dtsch. med. Wschr.*, 1930, **56**, 1605), reported that scrotal migration had occurred in a number of cases of undescended testis treated with gonadotrophic extract of pregnancy urine, and since then a large number of authors have contributed series of successful cases. Engle, E. T. (*Endocrinology*, 1932, **16**, 506) published the results of experiments on the macacus monkey in which the testis passes through the internal abdominal ring at birth, but does not pass from the inguinal canal to the scrotum until puberty. He fed the monkeys with extracts of anterior pituitary gland and the water-soluble factor of pregnancy urine over a period of three to four weeks. After 10 to 14 days the testis increased in size and mobility, and the scrotum became turgid and larger. The scrotal changes were only slight after the pituitary extract, but were quite marked after the extract from the urine. In 8 out of 10 monkeys complete descent occurred, and at the end of the experiment each testis had doubled its weight. In a castrated monkey fed on extract of urine no changes occurred in the scrotum.

Burrow, H. (*Brit. J. Surg.*, 1933, **21**, 507), in the course of an experiment to estimate the carcinogenic factor of oestrin, noted that a large percentage of mice which had been painted with it developed scrotal herniae, apparently due to a relaxation of the inguinal muscles.

The sequence of events in the descent of the testis would therefore appear to be as follows. At the seventh month of pregnancy, oestrogenic hormones are present in large amount in the blood of the mother and probably also in that of the foetus. A relaxation, due to these hormones, occurs at the internal abdominal ring and the testis passes from the abdomen into the inguinal canal. The latter has already been formed by the gubernaculum, activity in which appears to begin about the third month. It may be that intra-abdominal pressure plays some part in the outward migration of the testis. The continuing action of the female hormones stimulates the interstitial cells of the testis, especially at the rete, and the organ increases in size. The internal secretion of the testis acts on the scrotum, causing it to become turgid and larger. Possibly as the result of muscular action of the inguinal canal, whereby a milking effect is produced on the ovoid testicular body, it passes along the canal, and shortly before birth reaches the scrotum.

The descent, therefore, is almost entirely due to hormonal influence. The role of the gubernaculum is passive, although it has played the important part of a pathfinder.—I am, etc.,

A. W. BADENOCH.

London, W.1.

The "Stamping" of the Guards

SIR,—The correspondence in your columns on this subject began with a letter from Mr. Ian D. Kitchin (July 14, p. 64) on march fractures. He is mainly concerned with treatment, and we are not told whether any of his cases came from the Brigade of Guards. Is there any evidence that this condition is commoner in guardsmen, who are taught to bring their feet down smartly, than in other soldiers, who are not so taught? Deliberate "stamping," incidentally, was officially abolished years ago. I spent two years as R.M.O. to two battalions of the Grenadier Guards, and a further two years in two field ambulances which received the sick and injured from brigades including Guards and infantry of the line. I saw a few cases of march fracture in all regiments, and noted no connexion with drill parades. They were inclined to follow periods of intensive training. It would be interesting to know the incidence of this condition in Guards' and other battalions; such a comparison could be made from information in the possession of A.D.sM.S. of divisions including a Guards brigade. Even assuming that some such cases were precipitated by "stamping," I would agree with Major E. Grey Turner that the moral effect of the superb drill of the Guards on ceremonial occasions warrants a training involving a small amount of risk. I have seen the morale of whole towns in France, North Africa, and Italy enormously improved after witnessing such a parade. Their drill was one of the highlights of the military tattoo at Trieste last September. Would Dr. J. W. Perrott stop soldiers boxing or playing football? Far more casualties are caused by such sports. What about battle-training? Justified when training for war, of course. The ceremonial drill of the Guards has its place in peace as well as in war.

The functions of an R.M.O. include the advising of the commanding officer on matters relating to the health and morale of the battalion. I have found commanding officers and brigadiers of the Brigade of Guards very much alive to medical matters, and my advice has always been considered. "Pedes Plani Dolentesque" (Sept. 8, p. 333) has found that our advice cannot always be taken. I do not see that suggestions of ineptitude or weakness of R.M.O.s are well founded.—I am, etc.,

W. H. VALENTINE.
Late Lieut.-Col., R.A.M.C.

Wimbledon.

*** This correspondence is now closed.—ED., *B.M.J.*

Obituary

SIR E. FARQUHAR BUZZARD, Bt., K.C.V.O., LL.D., D.M., F.R.C.P.

Sir Farquhar Buzzard, who died on Dec. 17, was born in London on Dec. 20, 1871, the son of Thomas Buzzard, consulting physician to the National Hospital, Queen Square. Thomas Buzzard's distinction in neurology probably influenced the choice of a career by his eldest son. The other two sons, Sir Farquhar's brothers, made the Army their profession, again following their father, who had served in the Crimean War, being attached to the Turkish headquarters, and had been present at the siege of Sevastopol.

[*Lafayette, Ltd.*

As a boy of 14 Edward Farquhar Buzzard entered Charterhouse School, where he was science exhibitioner, and remained there for five years, leaving in 1890 for Oxford (Magdalen), the university to which he was to return thirty years later as regius professor. After four years at Oxford he took his clinical training at St. Thomas's Hospital, and qualified in 1898. In the following year he became M.R.C.P., and in 1902 proceeded D.M. Oxon. Shortly afterwards he became assistant physician to the Royal Free Hospital, an appointment which was followed by that of full physician and lecturer in medical pathology. He was also for eleven years assistant physician to the Belgrave Hospital for Children. In 1905 his association with his father's old hospital at Queen Square began with his appointment as out-patient physician, a post he held until 1922. In 1906 he was elected F.R.C.P., and in 1910 he was appointed to the visiting staff of St. Thomas's, and there remained until he retired at the age of 60, when he became consulting physician. In 1910 also he became consulting physician to the Queen Alexandra Military Hospital, Millbank, and the Royal Hospital for Incurables. By this time he had become widely known as a leading neurologist and had a large consulting practice in Harley Street. During the war of 1914–18 he was consultant to the London Command, with the rank of colonel, A.M.S.

In 1928 he succeeded Sir Archibald Garrod as Regius Professor of Medicine at the University of Oxford. During his tenure of the chair he became, in 1936, President of the British Medical Association. This was the fourth occasion in the rather more than one hundred years of the Association's existence that it had had as its president the regius professor. His address in the Sheldonian Theatre on the occasion of the Oxford Meeting of the Association will be long remembered, not only for its eloquence and its forward look, but for its sequel. One of his auditors was Lord Nuffield, who shortly afterwards, in order to give reality to what Sir Farquhar could only sketch as a dream, announced a benefaction of about one and a quarter million pounds for the establishment of a medical research school at Oxford. In the organization of this endownment Sir Farquhar Buzzard took a leading part, and although he had reached the age limit for regius professors, his term was extended until the age of 71 on account of his intimate concern with the detailed working out of Lord Nuffield's plans and intentions. He also became closely identified with the Nuffield Trust, set up to promote regionalization among provincial hospitals, and he was chairman of its Medical Advisory Council. He was also honorary physician to the Radcliffe Infirmary, and took a conspicuous part in the hospital as well as the academic affairs of Oxford.

During his term as President of the B.M.A. and before and after it he interested himself actively in Association matters, and the Association benefited greatly from his experience and wisdom and from his willingness to address meetings in many parts of the country, expounding policies which the Association desired to further. Especially noteworthy was his evidence, given in a personal capacity, before the select committee of the House of Lords on the Bill for the registration of osteopaths, a measure which he regarded as a menace to the prestige of medicine. His cogent and uncompromising testimony against the practice of the unqualified osteopath occupied, with the cross-examination, the greater part of two days. The promoters of the measure saw in him one of their most formidable opponents.

He was for long closely associated with the Royal College of Physicians. In 1906 he was Goulstonian Lecturer, taking as his subject acute infective and toxic conditions of the nervous system. As one of the Censors he took a prominent part in the Harvey Tercentenary Celebrations at the College, and he was the Harveian Orator for the year 1941. From 1932 to 1937 he was one of the Physicians-in-Ordinary to the King, becoming, at the beginning of the reign of George VI, a Physician-Extraordinary. He represented for many years on the General Medical Council the Medical Faculty of the University of Oxford.

Sir Farquhar Buzzard was able to unite with deep learning in his own subject the gift of clear exposition, which made him an excellent teacher. He could employ also the graceful speech demanded of public occasions. A noteworthy example was his delivery of the eleventh Earl Grey Memorial Lecture at Newcastle-upon-Tyne in 1939, when he spoke on neurology and its outlook and managed in the compass of an hour to embrace the history of neurology from the time of the Greeks down to Hughlings Jackson, Horsley, and Sherrington.

His own literary output was considerable, but was mostly in the form of contributions to textbooks. One work, in which he collaborated with Dr. J. G. Greenfield, was *The Pathology of the Nervous System*. He edited, with prefaces, Athanassio-Benisty's *Clinical Forms of Nerve Lesions* and *Treatment and Repair of Nerve Lesions*, which were published in the form of military medical manuals in 1918; also in like manner Babinski and Froment's *Hysteria or Pithiatism*. He wrote the section on diseases of the nervous system in Burney Yeo's *Manual of Medical Treatment*, and the similar articles in Allbutt's *System of Medicine*, Osler's *Modern Medicine*, French's *Index of Differential Diagnosis*, Latham and English's *System of Treatment*, and the *Encyclopaedia Medica*. He also contributed much to the medical journals.

Many honours came his way. He was made a Knight of the Victorian Order in 1927, and a Baronet in 1929. He held the honorary degrees of LL.D. of Belfast and of Manitoba. In 1940 he was awarded the Osler Memorial Medal as one outstandingly inheriting the Osler tradition.

In his early days he excelled at sports. In the mid-'nineties he was a member of the Oxford University Association Football XI and of the Old Carthusian XI, winners of the Amateur Cup in 1894 and 1897, and of the London Senior Cup for three years running. Some of his own mishaps on the football field, with ensuing temporary amnesia, furnished him with personal illustrations for his neurological lectures. In later life, at his country home at Godalming, he entered with zest into many outdoor pursuits, including shooting, fishing, and golf.

In 1899 he married Miss Mary Bliss, and they had two sons and three daughters. His elder son, who succeeds to the baronetcy, is a captain in the Royal Navy. His younger son is a medical man, Dr. E. M. Buzzard, who has been serving in the R.N.V.R. One of his daughters married Dr. H. Gardiner-Hill, physician to St. Thomas's Hospital.

SIR ARTHUR MACNALTY writes:

I have known four Regius Professors of Medicine of Oxford—Sir John Burdon-Sanderson, Sir William Osler, Sir Archibald Garrod, and Sir Farquhar Buzzard. They were all eminent men in their profession, but the fourth, whose passing we lament to-day, was perhaps the man of the widest interests in life. He worked hard and he played hard. His early laurels were won in Association football, and his devotion to the game interfered with his success in the Schools. He was an all-round athlete, and up to the war held his own in tennis tournaments. He loved every form of sport, and it was noted that the Regius Professor could never be found at Oxford when the Grand National was being run.

Cradled in neurology, Buzzard surpassed his distinguished father in extending knowledge of the subject. I first got to know him well

when encephalitis lethargica made its appearance. He asked me to see cases of the disease with him, invited me to medical discussions about it, and I got much insight into his profound knowledge of neurological disease and his gift for differential diagnosis. When he was asked to take the professorship at Oxford, at first he hesitated. I had some small part in effecting the compromise by which he continued to do consulting work in London. But the pressure of university duties at length made this impossible, and the sacrifice was the less in that by now Buzzard had discovered his great talent as an administrator. His many interests, his kindly personality, and especially his forthright speech and integrity made him *persona grata* with heads of houses, dons, medical colleagues, and undergraduates. Sometimes he was misjudged, sometimes his enthusiasm led him into error. These were small spots on the sun of his character. Above all, he served medicine and the Oxford Medical School wholeheartedly. It is well known that he had much to do with the founding of the Nuffield Professorships, nor should his work for the Nuffield Hospital Trust, which involved arduous journeys and conferences all over the British Isles, be forgotten. Lord Nuffield found in Buzzard a friend, a physician, and a helpful adviser in his munificent endowments to medicine.

As Buzzard grew older he retained his receptivity for new ideas. To several Oxford men the foundation of the Chair of Social Medicine in the University was a cherished hope. When I first discussed this with the Regius he was not in favour of the plan. I returned to the charge and drew up memoranda for him. In the end he was convinced, and it was through his support that the Chair and Institute of Social Medicine came into being. Nay, more, his study of the subject reorientated his views towards medicine generally; and his later papers and addresses emphasize the importance of the study of preventive medicine and environmental conditions in undergraduate and postgraduate medical education. In retirement he welcomed and helped his successor, Prof. Arthur Ellis, and he kept his interests in Oxford affairs.

Now he has gone from us. No longer can a friend wander into his rooms at Christ Church to be greeted by a genial growl as he pushes his tobacco pouch across to one. No longer can one hear the slow deliberate voice telling some amusing story or voicing plans for the National Health Service. He enjoyed life, sport, the open air, pictures, and people. He maintained the great traditions of the Oxford Medical School by strengthening its importance and influence. A loyal son of Oxford: he would have desired no better epitaph.

A. B. DANBY, F.R.C.S.Ed., F.R.C.O.G.

Mr. A. B. Danby, late of Edgbaston, Birmingham, died on Dec. 9 at Kidderminster. He was senior honorary gynaecological surgeon to the Birmingham United Hospital (Queen Elizabeth Hospital Unit), honorary obstetric surgeon to the Birmingham Maternity Hospital, and lecturer on clinical obstetrics and gynaecology and examiner in the same subjects at the University of Birmingham.

Alfred Beuthin Danby was born at Wellington, N.Z., in 1888, the son of Arthur S. Danby, and was educated at the public school in that city and at the University of New Zealand. Coming to this country to join Guy's Hospital Medical School he qualified in 1913. At Guy's he distinguished himself on the football field and was a member for three years of the XV, and served before the war of 1914–18 as house-surgeon, resident obstetrician, and out-patient officer. He held a commission as surgeon lieutenant, R.N., for four years, was present at the Dardanelles, and served with the Grand Fleet. On returning to civil life Danby became resident surgical officer at the General Hospital, Birmingham, and was elected to the visiting staff in 1921, as assistant gynaecologist. He joined the B.M.A. in 1919, was for a time honorary secretary of the Midland Medical Society, and later president of the Midland Obstetrical Society; he had also been a member of the Council of the Gynaecological Section of the Royal Society of Medicine. In addition to his main clinical posts in Birmingham Danby was visiting gynaecologist to the Mental Hospital there and an examiner for the Central Midwives Board. He held the F.R.C.S.Ed. diploma, and was elected a Fellow of the Royal College of Obstetricians and Gynaecologists in 1935. A number of papers by him appeared in the *Journal of Obstetrics and Gynaecology*.

Dr. EDMUND H. L. WIGRAM, of Oxford, recently demobilized from the R.A.M.C., died on Dec. 2 at Bangor Infirmary from injuries received when he fell while climbing Idwal Slabs, Tryfan Mountain, North Wales. Dr. Wigram, who was only 34 years of age, took part in the main expedition under Mr. Hugh Ruttledge which tried to climb Mount Everest in 1936 but was defeated by bad weather. He studied for the profession at Cambridge and St. Thomas's Hospital, took the Conjoint diplomas in 1937 and the M.B., B.Ch. degrees a year later, and after serving as obstetric house-physician at St. Thomas's became in turn house-physician and house-surgeon at the Radcliffe Infirmary, Oxford.

Dr. H. H. MCCLELLAND died at Ballymoney, Co. Antrim, on Oct. 5, at the age of 52. He had been at work as usual in the local dispensary during the morning and retired to rest when he came home, as he was not feeling well; a short time later he died in his sleep. Hugh Harper McClelland graduated M.B. at Queen's University, Belfast, just before the outbreak of the 1914–18 war and joined the R.A.M.C. shortly after. He served with the 2nd Battalion of the Cheshire Regiment in Salonika, Transcaucasia, and Turkey. In 1920 he was appointed medical officer for Ballymoney Dispensary District; he had already built up a successful practice in this district. He was appointed M.O.H. for Ballymoney Urban District in 1926, and for the past twenty years was deputy coroner for North Antrim. Dr. McClelland was a great friend of the poor people in his district, and was very well liked by all classes. He was an extremely popular member of the North-East Ulster Division of the B.M.A., and his cheery personality made him a great favourite with his colleagues. He took a keen interest in the welfare of the ex-Servicemen and was always willing to help them in any way he could. He was president of the local branch of the British Legion. He is survived by his wife, two sons, and a daughter. His elder son, Major R. McClelland, R.A.M.C., is serving in India, his second son is still at school, and his daughter assisted her father as secretary.

News has reached this country of the death on Oct. 3 at Leopoldville, Belgian Congo, of Miss FRANCES MARGARET HARPER, M.B., Ch.B., one of the early women graduates of the University of Edinburgh. Born in Edinburgh in 1876, she graduated in 1903, and took the D.P.H. of Cambridge in 1904 and the D.T.M. of the English Conjoint Board in 1913. In her youth she had studied the violin at Milan, but later made medicine her career, and after qualifying held the posts of M.O.H. at St. Helens and at Stoke-on-Trent, and house-surgeon at the West End branch of the Glasgow Maternity Hospital. During the last war Dr. Harper was attached to the No. 3 Malta Company of the R.A.M.C., and later served as medical officer with the English Mission to Czechoslovakia. For nearly a quarter of a century she worked as medical missionary in the district of Lake Leopold II in Central Africa, at first attached to Baptist missions, but for the past twelve years at Lediba, on the banks of the River Kasai, where she established a private hospital. Living a lonely life in the bush she devoted herself to the care of sick natives. Her work was recognized by diplomas from the University of Paris and the Belgian Colonial Ministry.

A correspondent sends the following memoir supplementing the brief notice published on Oct. 27. Dr. D. JOHNSTON JONES was the son of Dr. David Jones, of Everton, near Liverpool, who enjoyed a large and good-class practice for forty years, until 1893, when he retired to Brighton, where he died on May 20, 1903. The *British Medical Journal* described him as "the very type of the trusted family practitioner" and as "a man endowed with a most kindly heart and with admirable common sense, so that no wonder that his patients respected and confided in him." David Johnston Jones, who was educated at Edinburgh University, University College, London, and in Paris, took his M.B., C.M. of Edinburgh in 1877 and his M.D. in 1879, and the M.R.C.S.Eng. in 1877. He was house-surgeon in Liverpool Royal Infirmary, and assistant medical officer and pathologist at Somerset County Asylum, assistant medical officer and pathologist at Gloucester County Asylum, and subsequently became senior assistant medical officer in Kent County Asylum at Maidstone. On March 3, 1890, he was appointed senior medical officer at the London County Asylum for mental and nervous diseases at Banstead, Surrey, where he worked under the late Dr. T. Claye Shaw and with Dr. Hubert Bond, who was a junior medical officer then. On Oct. 1, 1901, Dr. Johnston Jones was appointed medical superintendent of Banstead Asylum. The late Sir Hubert Bond, when Senior Commissioner of the Board of Control, stated that Dr. David Johnston Jones used to devote half his salary at Banstead for the benefit of the staff and the patients, and that he was so devoted to his professional work and the patients that he made a practice of visiting every day all the 2,000 patients under his control. He retired from Banstead on July 25, 1910, and went to live at Worthing to take care of his widowed mother, to whom he was devoted. She died there in 1913. After her death Dr. D. Johnston Jones went to live in different places, but finally built himself the

house of "Adwy" in Vicarage Avenue, Llandudno, where after a long illness he died, a good friend and a charming personality to the last. He was buried on Sept. 26 near his brother, the late Col. John Matthews Jones, A.D.M.S., R.A.M.C., in the churchyard of St. Tudno's Church, near the Great Orme.

The late Dr. E. GILBERT BARK, emergency medical officer for Wallasey from 1938 onwards, studied medicine in Birmingham, and took the M.B.Lond. degree, with honours in medicine, in 1901, and the B.S. in 1902. After graduating he was for a time prosector in the Anatomical Department of Mason College and house-surgeon at Queen's Hospital, Birmingham. Settling in practice at Wallasey Dr. Bark became honorary medical officer to the Victoria Central Hospital, and, in the words of a colleague, his sound knowledge and great kindliness combined to make him a fine practitioner of medicine, a notable citizen, and a trusted leader of the medical profession in the borough. During the war years he was chairman of the Wallasey Division of the B.M.A. (which he had joined in 1907) and of the Local Medical War Committee. In the latter capacity he gave valuable service, his ripe experience, quick insight, and sound judgment making him an excellent chairman of a body which often had to take difficult and invidious decisions. Striking evidence of the esteem and affection in which he was held in Merseyside was provided by the large congregation assembled in Liverpool Cathedral for a memorial service conducted by the Dean. Dr. Bark was a former president of the Liverpool Medical Institution, and in memory of that fact the lesson was read by Mr. Robert Kennon, this year's president. The Dean in his address said that there was no person so important in the life of to-day as the family doctor, and Wirral could imagine no family doctor more perfectly fitting the ideal than he whom they remembered that day.

Medical Notes in Parliament

Shortage of Doctors and the "Call-up"

Capt. CHETWYND on Nov. 29 asked whether the Minister of Health knew of the shortage of house-surgeons in hospitals in the North-East. He asked Mr. Bevan to take all possible steps to remedy this, including securing the deferment of newly qualified doctors from military service. Mr. BEVAN replied that he was aware that hospitals in many parts of the country were short of resident officers. Newly qualified doctors were already allowed six or twelve months' deferment of military service, which could be extended in special circumstances.

Mr. LESLIE asked the Minister of Health if he would arrange that doctors with a large practice in mining areas would not be deprived of their assistant doctors when called up for military service until a substitute doctor could be obtained. Mr. BEVAN replied that it was open to the Central Medical War Committee to defer the recruitment to the Forces of a general practitioner's assistant in any area where there were special circumstances justifying such deferment. The committee, in consultation with the Local Medical War Committee, gave careful consideration to the needs of the civilian population in all such cases.

Motor Cars for Doctors

Mr. BARNES on Dec. 10 told Mr. Touche that the long delay experienced by doctors in obtaining new motor cars essential for their work was due to the comparatively small number of new cars so far produced. The Minister of War Transport had issued licences at a rate to cover anticipated production, and high priority had been given to doctors. On a rough estimate he had granted some 3,500 licences to doctors out of the total of 14,000 licences granted. Some 500 applications from doctors were outstanding.

Release from the Forces

On Dec. 13 Col. STODDART-SCOTT asked what were the principles upon which had been based the acceleration of the release of medical officers from the Forces under Class A to relieve the inadequacy of the medical services for the civilian population; how many doctors would be demobilized under existing arrangements by Jan. 1, 1946, under A and B; and how many would be demobilized from the Services during the first six months of 1946. In reply Mr. BEVAN said that in accelerating the release of medical officers from the Forces the aim had been to reduce the ratio of doctors to serving personnel to about 2 per 1,000. He could not give the exact number who would be released by Jan. 1 next, but it was expected to be at least 5,000. He regretted that he could not give a total to June, 1946. He was satisfied that considerable acceleration would be achieved.

Alien Doctors

Mr. EDE, replying on Dec. 13 to Major Symonds, said alien doctors on the permanent *Medical Register* required permission to take a new appointment only if their stay here was subject to conditions requiring them to apply to the Home Office for such permission. The supervision of the work undertaken by alien doctors who were only temporarily registered has been entrusted to the Central Medical War Committee.

Early Recognition of Cancer

Mr. HASTINGS asked Mr. Bevan on Dec. 13 whether, in view of the fact that there were about 70,000 deaths annually from cancer and that a large proportion of these patients only obtain specialist treatment when too late, he would provide lectures for general practitioners on the early recognition of this disease. Mr. BEVAN said Mr. Hastings's object could perhaps be best attained by encouraging early and frequent consultation between general practitioners and specialists in the work of diagnosis and treatment. Organized arrangements for this purpose were now being developed under the Cancer Act, 1939, so far as present circumstances permitted. Mr. HASTINGS said that where the lectures he advocated had been instituted they had been appreciated and well attended by general practitioners. Mr. BEVAN said he would direct the attention of the relevant authorities to that comment.

Col. STODDART-SCOTT suggested that Mr. Bevan should take steps to instruct the public in the early symptoms of cancer. Mr. BEVAN, "speaking on the impulse of the moment," thought that would be extremely dangerous.

Report on Mental Nursing

Mr. BEVAN stated on Dec. 13 that he and Miss Wilkinson had received from the Earl of Athlone the report of the Subcommittee on Mental Nursing and the Nursing of the Mentally Defective which was appointed by the Athlone Interdepartmental Committee on Nursing Services. The report, which would be published before the House rose for the recess, was a most valuable survey of the whole field falling within the subcommittee's scope. He proposed to obtain without delay the views of the various interested bodies regarding the recommendation, many of which would require legislation.

Formula of Penicillin

Mr. JOHN LEWIS inquired on Dec. 13 by whom penicillin had been synthesized and what was the structural formula. Mr. HERBERT MORRISON said a practical process for synthesizing penicillin had not yet been evolved. He understood that the British workers associated with the Medical Research Council and their American collaborators proposed to publish available information at an early date regarding the structural formula.

Research into Pneumoconiosis.—On Dec. 7 the Workmen's Compensation (Pneumoconiosis) Bill passed through committee without amendment. Its third reading was then proposed. On this Mr. SOMERVILLE HASTINGS said the Bill would teach something of the natural history of the disease. By extending the period of observation on former miners who, during the war, had been engaged on war service or war industry, the Bill would enable information to be obtained about the disease which had not been known before. Mr. LINDGREN said research had been extended but had not been developed to the extent Mr. James Griffiths desired, mainly because of the shortage of experts. The Ministry of National Insurance would be glad to use the opportunities of research which this small Bill gave. The Bill was read a third time.

Notes in Brief

There are approximately 4,000 public vaccinators in England and Wales, practically all of whom are doctors in general practice. The number of vaccination officers is not readily ascertainable: they are generally local government officers engaged in other duties also. There are no inspectors charged with the duty of inspecting vaccination marks. The staff of the Government Lymph Establishment numbers 25.

At the end of 1944 there were thirteen full-time medical inspectors and 1,862 examining surgeons appointed under the Factories Act. In addition there were known to be approximately 180 doctors exercising full-time medical supervision and 890 exercising regular part-time supervision in factories. During the past year there has been no substantial change in these numbers.

Mr. Ivor Thomas announced on Dec. 5 that the Air Ministry Flying Personnel Committee has made intensive studies, both under laboratory conditions and in the field, of the effect on aircrew fatigue of long range and altitude flying and a constant change from one climatic condition to another.

From Jan. 1, 1940, when the Various Industries (Silicosis) Compensation Scheme was extended to cover workmen employed under-

ground in slate mines, up to Sept. 30, 1945, the total number of workmen in North Wales slate mines certified by the Silicosis Medical Board to be suffering from silicosis or silicosis accompanied by tuberculosis was 103. There were 8 in 1940, 5 in 1941, 17 in 1942, 12 in 1943, 26 in 1944, and 35 up to Sept. 30, 1945.

At present persons who enter Malaya are required to take precautions against infection by means of inoculation and vaccination. Mr. Lawson states that there is a serious shortage of hospital facilities and medical staff and that it is necessary to prevent avoidable additions to the tasks of the military administration. These include the prevention and control of disease. Mr. Lawson also states that comprehensive and detailed instructions have been issued on the medical examination of prisoners of war from the Far East.

Universities and Colleges

UNIVERSITY OF CAMBRIDGE

The following candidates have been approved at the examination indicated:

FINAL M.B.—*Part I (Surgery, Midwifery, and Gynaecology)*: A. V. Adams, D. M. C. Ainscow, D. J. ap Simon, C. M. Attwood, J. G. Benstead, E. M. M. Besterman, D. A. L. Bowen, D. K. Briggs, J. A. Bulleid, J. W. Coleman, D. M. T. Cones, D. J. Crockett, T. M. Cullingworth, P. S. Davis, J. R. B. Dixey, R. D. Eastham, A. C. Elithorn, A. M. Elliott, P. A. Emerson, J. B. D. Evans, H. S. Eyre, A. S. Falconer, J. B. Frost, J. Gloster, R. E. Gruchy, L. Haas, P. S. Hall, P. M. R. Hemphill, P. F. C. Jackson, K. E. Jefferson, A. G. Jessiman, I. S. M. Jones, J. W. Ker, J. G. Kilner, G. L. Leathart, J. D. Lever, R. H. G. Lyne-Pirkis, A. D. R. MacAuslan, J. McFie, I. K. R. McMillan, H. G. Mather, S. R. Mawson, P. A. Merton, R. I. Milne, J. J. Morland K. S. Murray, I. M. Ormerod, J. V. Owen, I. M. Ramsden, J. W. T. Redfearn, J. F. F. Rooney, O. C. A. Scott, J. G. Selwyn, D. Seymour, R. E. Sidebotham, D. R. Smith, J. S. Swallow, C. E. D. Taylor, A. D. Thomson, H. W. Trusted, S. Vakil, W. van't Hoff, D. R. Wallace-Jones, L. G. R. Wand, J. C. Ward, I. W. Whimster, H. Whitmore. *Women*: R. S. J. Baker, J. E. G. Brieger, J. Chivers, F. M. Fountain, J. F. Grant, M. Hobson, P. A. Howard, E. G. Howe, G. M. Hunt, C. M. E. Jones, H. M. J. Lawn, B. M. Leach, S. M. McNeile, Mrs. A. M. P. Pantin, A. M. Senior-Tolson, A. M. Sibly, G. C. Thompson, A. S. Willis.

UNIVERSITY OF LONDON

The following candidates have been approved at the examination indicated:

POSTGRADUATE DIPLOMA IN PSYCHOLOGICAL MEDICINE.—*B. G. C. Ackner, *G. A. W. Angus. *Part A*: T. Freeman, A. P. Micallef, J. M. Tanner.

* With Mental Diseases (Psychiatry)

UNIVERSITY OF MANCHESTER

At a meeting of the University Council, held on Dec. 14, Robert Platt, M.D., F.R.C P., was appointed full-time Professor of Medicine in the University.

The Medical Students' Representative Council has established a Wood Jones Foundation Lecture to mark the esteem in which Prof. F. Wood Jones, F.R.S., F.R.C.S., has been held by the student body during his tenure of the Chair of Anatomy in the Manchester Medical School. He is leaving the city to take the Sir William J. Collins Chair of Comparative Anatomy at the Royal College of Surgeons of England, and he himself gave the first lecture of the series on Dec. 11 in the University Chemistry Theatre at Manchester.

The following candidates have been approved at the examinations indicated:

FINAL M.B., CH.B.— *†Mary Goodyear, *†J. E. Morris, R. L. Armistead, F. M. Benton, J. B. Brooks, K. Burchill, G. H. Burgess, P. J. Burke, G. L. Cantrell, G. R. Carr, Elsie M. Dakin, Jean B. Fletcher, Nora Harnden, P. W. Harvey, J. A. Jamieson, Elizabeth Jenkins, H. A. Koretz, T. K. J. Leese, J. D. Lumsden, B. Marsden, Jessie Million, Margaret W. Oliver, Margaret Rhodes, F. N. Valdez, W. M. Whittaker. *Part I (Forensic Medicine and Hygiene and Preventive Medicine)*: J. C. T. Archer, S. F. Gilbert, Christine M. Hope, J. B. Howard, D. P. Howarh, D. P. Keirby, Theresa P. Lee, O. R. W. Sejrup, H. Simpson, J. H. M. Thomas, C. H. Thompson, H. W. Wyile.

* Awarded second-class honours. † Awarded distinction in medicine.

UNIVERSITY OF EDINBURGH

A graduation ceremonial was held on Dec. 14, when the following degrees and diplomas were conferred:

M.D.—J. H. M'Intyre, [3] O. A. S. Marais, [2] Lieut. J. F. O. Mitchell, R.A.M.C., R. J. E. Paterson, [3] Major J. F. Riley, R.A.M.C., [1] A. E. Ritchie, [2] I. M. Scott, [1] Sheila P. V. Sherlock, [3] L. M. Thompson, [3] Major W. S. Watson, R.A.M.C.

CH.M.—I. A. G. L. Dick.

M.B., CH.B.—J. C. S. Adams, B. A. Cookson, F. E. Cull, A. Douglas, S. C. Dryden, K. D. Foggitt, May L. Gilbert, R. E. Glenn, W. H. Graham, K. A. R. Henry, W. R. Johnson, I. J. M. Lumsden, J. R. M'Callum, D. L. Mackay, Margaret M. Macpherson, Eileen M. Munn, T. M. Ness, T. H. Park, D. F. Robertson, D. J. Rodger, Daphne G. D. T. Smedberg.

DIPLOMA IN MEDICAL RADIOLOGY.—A. A. N. Bain, J. R. Condon, E. F. Ridley.

[1] Awarded gold medal for thesis. [2] Commended for thesis. [3] *In absentia.*

ROYAL COLLEGE OF SURGEONS OF ENGLAND

The Moynihan Lecture will be delivered by Mynheer Willem Noordenbos, Hon. F.R.C.S., professor of surgery in the University of Amsterdam, at the College (Lincoln's Inn Fields, W.C.) on Wednesday, Jan. 9, 1946, at 5 p.m. His subject is "The Choice of Oblique and Transverse Incisions in Abdominal Surgery." The lecture is open to medical practitioners and advanced students.

Prof. and Mrs. Noordenbos will be present at the College monthly subscription dinner at 7 p.m. on Jan. 9, and Fellows and Members and their wives may like to take the opportunity of meeting them. If so, they should notify the secretary of the College at least a week in advance.

Other lectures to be delivered at the College are as follows: Jan. 3, Arris and Gale Lecture by Mr. Norman Capener, Physiological Rest: The Orthopaedic Principle; Jan. 10, Hunterian Lecture by Prof. Ivor Lewis, The Surgical Treatment of Carcinoma of the Oesophagus, with Special Reference to a New Operation for Growths of the Middle Third; Jan. 17, Hunterian Lecture by Prof. P. W. Clarkson, The Treatment of Face and Jaw Casualties in the British Army; Jan. 24, Hunterian Lecture by Prof. C. H. Gray, Sciatica; Jan. 31, Hunterian Lecture by Prof. S. H. Wass, The Odontomes and Other Affections of the Jaws: Their Pathology, Diagnosis, and Treatment. All the lectures begin at 5 p.m.

FACULTY OF RADIOLOGISTS

The following candidates have satisfied the Fellowship Board at the examination for the Fellowship of the Faculty: *Radiodiagnosis*: H. R. Holmes, M.D., D.M.R.E., A. S. Johnstone, M.D., F.R.C.S.Ed., D.M.R.E., J. H. Smitham, M.B., B.S., D.M.R.E. *Radiotherapy*: M. Halberstaedter, M.B., B.S., D.M.R.E.

The Services

Surg. Capt. (Acting Surg. Rear-Admiral) C. E. Greeson, R.N., has been appointed C.B. (Military Division) for distinguished service throughout the war in Europe.

Temp. Surg. Lieut. A. P. B. Waind, R.N.V.R., has been mentioned in dispatches for good service and devotion to duty shown during the defence of Calais in May, 1940.

Capts. A. Barber, J. F. Pantridge, and T. B. Smiley, R.A.M.C., have been awarded the M.C. in recognition of gallant and distinguished services in Malaya in 1942.

The Efficiency Decoration of the Territorial Army has been conferred upon the following officers: Majors (Temp. Lieut.-Cols.) A. Dyce Davidson, R. K. Hanlin, and H. B. Trumper; and Majors C. F. Critchley, J. C. McFarland, and J. R. Wright, R.A.M.C.

The following appointments and awards have been announced in recognition of gallant and distinguished services in Italy:

C.B.E. (Military Division).—Brig. (Temp.) G. S. Parkinson, Brig. (Local) E. R. Boland, O.B.E., R.A.M.C., and Brig. (Acting) G. P. Kidd, M.C., late R.A.M.C.

O.B.E. (Military Division).—Cols. (Acting) A. C. Turner and W. R. Martine, M.B.E., T.D.; Cols. (Temp.) W. A. D. Drummond, R. E. Rees, M.C., T.D., J. T. Robinson, T. B. H. Tabuteau, and T. Young; Lieut.-Cols. R. Coyte and A. L. Crockford, D.S.O., M.C., T.D.; Lieut.-Cols. (Temp.) T. F. Briggs, J. J. M. Brown, F. A. Donnolly, F. J. Fowler, R. H. Hunt, J. D. P. Macpherson, J. G. McCrie, G. W. Molyneux, T. T. P. Murphy, O. A. Savage, D. Thomson, and P. H. Wood, R.A.M.C. Col. (Acting) D. Bhatia, Col. (Temp.) D. H. Waldron, and Lieut.-Col. (Temp.) A. M. Mackenzie, I.A.M.C.

M.B.E. (Military Division).—Lieut.-Col. (Acting) I. B. Pirie; Major J. C. Wishart; Majors (Temp.) H. Bridges, W. A. Carey, P. W. Clarkson, H. J. Croghan, E. A. Fiddian, K. B. Gibson, J. Gillang, A. F. W. Hall, H. D. Hunter, A. R. Kennedy, S. E. Large, J. Littlejohn, J. D. Miller, W. Storrar, R. I. Mitchell, W. F. Nicholson, G. A. G. Peterkin, and D. J. D. Torrens; Major (Acting) D. McV. Morrison; Capts. J. Comyn, F. J. Gillingham, J. Scobbie, and A. S. Smith; Lieut. J. Noble, R.A.M.C. Major (Temp.) H. M. Archibald, I.A.M.C.

D.S.O.—Lieut.-Col. (Temp.) R. B. Wright, O.B.E., R.A.M.C., and Lieut.-Col. (Temp.) W. Laurie, I.A.M.C.

M.C.—Capts. J. A. L. Cooper, W. A. Dewar, A. M. Gwynn, and J. S. Walters; Capt. (Temp.) N. J. Craig, R.A.M.C. Capts. K. C. Ganapathy, J. R. Pereira, K. M. Rao, and R. R. Rao, I.A.M.C.

DEATHS IN THE SERVICES

Major-Gen. DONALD CLEWER, C.B., Colonel Commandant of the Army Dental Corps and formerly Director of the Army Dental Service, died in hospital on Dec. 11. He received his professional training at Guy's Hospital, and qualified L.D.S., R.C.S. in 1914. In 1940 he was the first officer of the Army Dental Corps to reach the rank of major-general. In recognition of his outstanding service he was created C.B. in 1942.

No. 49

INFECTIOUS DISEASES AND VITAL STATISTICS

We print below a summary of Infectious Diseases and Vital Statistics in the British Isles during the week ended Dec. 8.

Figures of Principal Notifiable Diseases for the week and those for the corresponding week last year, for: (a) England and Wales (London included). (b) London (administrative county). (c) Scotland. (d) Eire. (e) Northern Ireland. *Figures of Births and Deaths, and of Deaths recorded under each infectious disease, are for:* (a) The 126 great towns in England and Wales (including London). (b) London (administrative county). (c) The 16 principal towns in Scotland. (d) The 13 principal towns in Eire. (e) The 10 principal towns in Northern Ireland. A dash — denotes no cases; a blank space denotes disease not notifiable or no return available.

Disease	1945 (a)	(b)	(c)	(d)	(e)	1944 (Corresponding Week) (a)	(b)	(c)	(d)	(e)
Cerebrospinal fever	41	1	11	—	4	44	4	24	—	2
Deaths		1	—				—	1		
Diphtheria	574	43	181	76	24	613	21	148	128	21
Deaths	7	—	3	1	—	10	—	1	—	—
Dysentery	242	36	50	1	—	254	24	78	5	—
Deaths				—	—				—	—
Encephalitis lethargica, acute	1	1	—	—	—	4	—	—	—	—
Deaths		—					—			
Erysipelas			51	7	2			43	12	3
Deaths		—					—			
Infective enteritis or diarrhoea under 2 years				41					27	
Deaths	36	6	7	17	2	35	4	5	9	2
Measles*	611	33	103	188	1	8,906	12	413	13	264
Deaths	—	—	—	1	—	13	—	—	—	—
Ophthalmia neonatorum	54	4	8	—	—	61	3	18	1	—
Deaths										
Paratyphoid fever	—	—	—	—	—	—	—	1 (B)	—	—
Deaths	—	—	—	—	—	—	—	—	—	—
Pneumonia, influenzal†	744	56	11	4	3	715	29	7	2	8
Deaths (from influenza)	35	6	1	1	—	20	1	1	—	—
Pneumonia, primary			268	13				356	23	
Deaths		41		13	11		20		12	7
Polio-encephalitis, acute	5	—				—	—			
Deaths		—					—			
Poliomyelitis, acute	28	1	—	5	—	5	2	1	1	—
Deaths		—					—			
Puerperal fever		2	17		—		4	9		—
Deaths										
Puerperal pyrexia‡	116	16	12	1	1	138	13	10	1	—
Deaths		1					—			
Relapsing fever	1	—			—	—	—			—
Deaths										
Scarlet fever	1,779	144	280	26	55	2,005	58	287	31	65
Deaths	1	—	—	—	1	2	—	—	—	—
Smallpox	—	—	—	—	—	—	—	—	—	—
Deaths				—	—				—	—
Typhoid fever	5	1	1	1	—	2	1	2	5	—
Deaths	—	—	—	—	—	—	—	—	—	—
Typhus fever	—	—	—	—	—	—	—	—	—	—
Deaths				—	—				—	—
Whooping-cough*	1,225	102	65	25	10	1,465	39	144	55	10
Deaths	6	2	1	—	1	14	—	1	—	—
Deaths (0–1 year)	349	44	44	39	13	349	40	72	23	19
Infant mortality rate (per 1,000 live births)										
Deaths (excluding still-births)	4,865	734	639	217	116	4,521	663	595	217	120
Annual death rate (per 1,000 persons living)			14·5	14·0	§			13·7	14·1	§
Live births	6,630	890	853	351	244	6,762	617	932	332	276
Annual rate per 1,000 persons living			17·1	22·6	§			19·0	21·5	§
Stillbirths	202	32	27			197	19	29		
Rate per 1,000 total births (including stillborn)			31					30		

* Measles and whooping-cough are not notifiable in Scotland, and the returns are therefore an approximation only.
† Includes primary form for England and Wales, London (administrative county), and Northern Ireland.
‡ Includes puerperal fever for England and Wales and Eire.
§ Owing to movements of population, birth and death rates for Northern Ireland are still not available.

EPIDEMIOLOGICAL NOTES

Discussion of Table

In *England and Wales* a further increase in measles, 110 more cases, was recorded, while scarlet fever, whooping-cough, and diphtheria went down by 100, 159, and 102 respectively.

The decrease in scarlet fever was due to a slight fall in most parts of the country, no area showing any large change in incidence. The fall in diphtheria was mainly contributed by the north—Lancashire had 39 fewer cases, Yorks West Riding 19 fewer, and Northumberland 15 fewer; in the southern part of the country there was a slight rise.

The largest variations in the local trends of whooping-cough were decreases in Staffordshire 32, Lancashire 30, and Essex 25, and an increase in London 23. Two counties were mainly responsible for the rise in measles—Lancashire and Pembrokeshire, with increases of 56 and 27.

No fresh outbreak of dysentery occurred during the week, the increase of 11 being due to rises in existing outbreaks. The largest returns were: Lancashire 44, London 36, Warwickshire 21, Berkshire 17, Glamorganshire 16, Essex 12, Surrey 10, Middlesex 10.

In *Scotland* the incidence of acute primary pneumonia was higher by 30 cases, while decreases were recorded for diphtheria 40, scarlet fever 34, and dysentery 18. Contrary to the general trend, a slight increase in dysentery occurred in Glasgow, where 30 of the 50 cases were notified.

In *Eire* the notifications of diphtheria fell by 13, and whooping-cough by 16, but there were 20 more cases of measles. A small decline was reported in the notifications of diarrhoea and enteritis; the 41 cases is the lowest total since the beginning of August.

Quarterly Returns for Eire

The birth rate during the third quarter was 22.9 per thousand, being 1.3 above the September quarter of the preceding year. The infant mortality was 58 per thousand registered births, and 5 below the corresponding figure for the third quarter of 1944. The general death rate was 11.9 per thousand, this rate being 0.1 and 0.2 below the rates for 1944 and 1943, but from 0.3 to 0.5 above that for 1940–2. Deaths from pulmonary tuberculosis numbered 654, and from other forms of tuberculosis 204; these were 53 and 22, respectively, in excess of the third quarter of 1944. Of the 403 deaths from the principal epidemic diseases, 330 were attributed to diarrhoea and enteritis under 2 years, 34 to diphtheria, and 21 to whooping-cough.

Week Ending December 15

The notifications of infectious diseases in England and Wales during the week included: scarlet fever 1,753, whooping-cough 1,195, diphtheria 575, measles 619, acute pneumonia 969, cerebrospinal fever 44, acute poliomyelitis 10, dysentery 313, typhoid 6.

On Dec. 17 representatives of 48 local authorities and others co-operating with the Department of Scientific and Industrial Research in the study of atmospheric pollution met officers of the Department in conference at the County Hall, Westminster, under the chairmanship of Dr. J. A. Gillison of the L.C.C. In a message to the conference Mr. Herbert Morrison (Lord President of the Council) stressed the importance of collaboration between local authorities and D.S.I.R. in maintaining records of pollution up and down the country, and added, "We cannot have a clean Britain on the ground with perpetually dirty skies above." The conference learnt with satisfaction that 30 additional recording instruments had been brought into use during the year and that a number of authorities had started to take observations for the first time. It recorded the view that "it is only by maintaining continuous records at a large number of sites and by statistical treatment of the data so obtained that exact knowledge can be acquired of the amount and the trends of pollution. This knowledge is to-day more important than ever when so many replanning schemes are under consideration." Dr. G. M. B. Dobson, F.R.S., said that the standardization of measurement, the co-ordinating of local observations, and fundamental research on problems of atmospheric pollution previously carried out on the advice of the Atmospheric Pollution Research Committee would in future form part of the work of the Department's Fuel Research Station, where it would be effectively linked with practical work already in hand there aiming at the prevention of pollution.

Medical News

The London Women's Parliament will hold its sixth session on Sunday, Jan. 6, at B.M.A. House, Tavistock Square, W.C. The subject is the rebuilding of family life, and it will bring together women from all walks of life—factory workers, doctors, nurses, teachers, trade unionists, housewives and mothers, welfare workers, and representatives of local authorities.

The British Social Hygiene Council (Tavistock House North, Tavistock Square, London, W.C.1) and the Town and Country Planning Association (28, King Street, Covent Garden, London, W.C.2) have organized a conference on the needs and problems of the family, to be held on Thursday, Jan. 24, and Friday, Jan. 25, 1946, at B.M.A. House, Tavistock Square, London, W.C.1. The object of the conference is to throw light upon the questions which are involved in the present changing pattern of family life, with the problems of population to which it gives rise. The convenors consider that the outstanding practical family problem is the need for sufficient family houses of high space standard and equipment, properly placed in relation to work-places and to all necessary social and educational services; but other practical problems will also receive attention. The Rt. Hon. Lord Pakenham will open the proceedings on Thursday morning at 10.45. Speakers during the two days will include Mr. R. F. Harrod (on population trends), Dr. Greenwood Wilson (on health services and the family), Miss E. Halton and Mr. R. Weatherall (housing and education), Prof. F. A. E. Crew, Dr. David Mace, and the Rev. Gilbert Russell (biological and psychological aspects), and Mr. F. J. Osborn (planning for the family in the community). Local authorities wishing to send delegates to the conference will receive permission from the Ministry of Health for the expenses of two delegates. Tickets may be obtained from their own association by members at 5s., or from the offices of either association by non-members at 10s.

The annual general meeting of the Medical Society of the L.C.C. Service will be held at County Hall, Westminster Bridge, S.E., on Wednesday, Jan. 9, at 4.30 p.m., when Sir Allen Daley will deliver his presidential address.

The headquarters office of the Medical Research Council, which has been housed during the war in the London School of Hygiene and Tropical Medicine, will reopen at 38, Old Queen Street, Westminster, S.W.1 (Telephone Whitehall 4884), on Dec. 31. The director of the Public Health Laboratory Service is included in the move.

It was announced on Dec. 19 at a special meeting of the Court of Governors of St. George's Hospital that a suitable site has been found for the new buildings of the hospital when it moves from Hyde Park Corner. The proposed site (approximately 30 acres) forms part of the Springfield Mental Hospital at Tooting. The report of the House Committee, outlining a scheme for a general hospital of 850 to 1,000 beds, complete with a medical school and facilities for research and for training student nurses, was presented by Sir Malcolm Trustram Eve and approved by the Court. Sir Walter Monckton was elected chairman of the hospital in succession to Lord Greville.

In January an American medical journal, *Blood: the Journal of Hematology*, will be published bi-monthly by Grune and Stratton Inc., 381, Fourth Avenue, New York 16, N.Y., U.S.A. The editor-in-chief is Dr. William Dameshek of Boston. He will be supported by five associate editors, and also by Dr. George R. Minot as consulting editor. The annual subscription to the journal is $7.50 for subscribers outside the United States. Messrs. H. K. Lewis and Co., Ltd., are distributors of the journal in this country.

Rearrangements of interdepartmental machinery have now been completed for the transfer of responsibility from the Board of Trade to the Ministry of Supply in the field of engineering. The headquarters organization concerned is the Engineering Industries Division, Ministry of Supply, I.C. House, Millbank, S.W.1. The transfer of Board of Trade responsibilities in this respect covers scientific instruments and laboratory apparatus, surgical and hospital instruments and equipment, photographic and optical equipment and accessories therefor.

Sir Henry Dale, O.M., President of the Royal Society 1940–5, will retire from his position as Fullerian Professor in the Royal Institution and Director of the Davy-Faraday Research Laboratory on Sept. 30, 1946.

The National Institute for the Blind in its annual report says that blind physiotherapists are to-day busier than ever before. In the last year of the war the blind staff at the Eichholz Clinic in London gave 11,866 treatments, while senior students working under supervision at the N.I.B. evening clinic gave 12,587 treatments. The school of massage has now changed its name to the school of physiotherapy.

Letters, Notes, and Answers

All communications with regard to editorial business should be addressed to THE EDITOR, BRITISH MEDICAL JOURNAL, B.M.A. HOUSE, TAVISTOCK SQUARE, LONDON, W.C.1. TELEPHONE: EUSTON 2111. TELEGRAMS: *Aitiology Westcent, London*. ORIGINAL ARTICLES AND LETTERS forwarded for publication are understood to be offered to the *British Medical Journal* alone unless the contrary be stated.
Authors desiring REPRINTS should communicate with the Publishing Manager, B.M.A. House, Tavistock Square, W.C.1, on receipt of proofs. Authors over-seas should indicate on MSS. if reprints are required, as proofs are not sent abroad.
ADVERTISEMENTS should be addressed to the Advertisement Manager, B.M.A. House, Tavistock Square, London, W.C.1 (hours 9 a.m. to 5 p.m.). TELEPHONE: EUSTON 2111. TELEGRAMS: *Articulate Westcent, London*.
MEMBERS' SUBSCRIPTIONS should be sent to the SECRETARY of the Association. TELEPHONE: EUSTON 2111. TELEGRAMS: *Medisecra Westcent, London*.
B.M.A. SCOTTISH OFFICE: 7, Drumsheugh Gardens, Edinburgh.

ANY QUESTIONS?

Benzyl Benzoate for Scabies

Q.—*What are the advantages and disadvantages of benzyl benzoate? A patient of mine was told six months ago that he had scabies, and that he should rub in benzyl benzoate. This he foolishly did for six months, and now when he goes to bed he suffers with intense irritation. Could this irritation be due to the benzyl benzoate? What is your opinion on the use of tetmosol soap?*

A.—Benzyl benzoate in 25% concentration was standardized, as a wartime measure, as the most convenient remedy for scabies. Two applications only are required, given on consecutive days, the whole body below the neck being covered by the emulsion. Disinfection of contact garments and bedding is recommended, although some experts consider this unnecessary. Contacts also require treatment, even if they appear free from skin disease. The patient who has rubbed in benzyl benzoate for six months must have a remarkably tough skin, and can count himself extremely fortunate to be no worse than itchy. Applications of a mild boric–zinc ointment, avoiding baths, ought to restore the skin to normal in time. Tetmosol soap is valuable as a stopgap when organized treatment is not available—for example, in liberated territory.

Renal Tuberculosis

Q.—*A man aged 50 had a tuberculous kidney removed several months ago. He now suffers from increased frequency of micturition, night and day, dysuria, and severe spasms of perineal pain. Alkalis and belladonna temporarily relieve his dysuria. I would appreciate any suggestions for the alleviation of his symptoms. His general condition is excellent.*

A.—It is impossible to answer this question, for no information is given as to the condition of the remaining kidney. Is it completely healthy? If it is tuberculous, then no improvement in the symptoms can be expected. Presumably the health of the opposite kidney was established before nephrectomy; if so, the symptoms are likely to result from a failure to remove the whole of the ureter on the affected side, so that existing disease there maintains the bladder inflammation. The operation of residual ureterectomy may be expected to produce a cure.

Intramuscular Injection of Liver

Q.—*Apart from pernicious anaemia, what are the indications for the intramuscular injection of liver extract? Is liver extract a good tonic? What are the indications? Is it justifiable to give injections of liver extract without examination of the blood?*

A.—It is difficult to explain the action of tonics on pharmacological grounds. The choice of materials is influenced by ideas rather than by experiment, and in our own time we have seen arsenic, quinine, and the hypophosphites decline in favour and give place to the vitamins and liver extract. There is evidence that certain substances, such as nicotinic acid and acid sodium phosphate, may increase the output of energy in health, but this effect is at best slight. The prescription of a tonic implies that the patient is mildly ill, in a physical or mental way, and usually that the appetite is impaired; it is conceivable that liver extract might stimulate appetite under these condtions. As a general rule, however, tonics seem to be made by analogy—because quinine reinvigorates the patient with malaria, it will relieve debility from other causes—and they act mainly by suggestion. Suggestion is especially powerful when the material is given by injection. The ritual of asepsis and the pain of injection combine to influence the patient, and the relief which female patients claim from injections of drugs often has a transparent sexual tinge. It is not unusual for patients to develop an addiction for injections of drugs so inactive that one must conclude that the addiction is to the injection and not to the drug. The whole topic of parenteral

therapy is controversial, and it is enough to say that it may easily degenerate into conscious or unconscious quackery, as has happened in a number of Oriental countries. Liver extract may be a good tonic in certain hands, but there is no evidence that in a controlled trial it would prove superior to injections of normal saline solution.

It should be noted that in accordance with Ministry of Health regulations, which have been issued on account of the present shortage, liver extract may be given by mouth only in pernicious anaemia and related megalocytic anaemias, such as sprue and nutritional macrocytic anaemia. In what follows it is assumed that liver extract is given by injection.

Liver extract is a good source of the B vitamins. Some of the constituents, such as folic acid, have been isolated only recently, and there may be others still to be discovered. This group of vitamins has a complex and extensive action on the gastro-intestinal tract, and injection of liver extract has been particularly recommended in ulcerative colitis, in which deficiency of vitamins may develop. Liver extract is also of value in leucopenia, and perhaps because of this action it may counteract the depression produced by *x*-ray therapy. It has been recommended for the treatment of cirrhosis of the liver, particularly when ascites is present. It seems probable that when liver extract excites a therapeutic effect in conditions other than the megalocytic anaemias, it does so by virtue of elements of the vitamin-B complex and not the haemopoietic principle. In such conditions it would be justifiable to inject liver extract without examination of the blood. It is, nevertheless, desirable to examine the blood before embarking on so elaborate a treatment, if only to emphasize the fact that too much should not be expected of liver therapy in conditions other than pernicious anaemia.

Posture in Heart Disease

Q.—*Recent experimental work seems to show that in the normal heart cardiac output is greater in the supine than in the erect position. Is this having any influence on modern teaching with regard to the posture recommended in cases in which the chief requirement is a reduction of the work of the heart?*

A.—In heart failure reduction of the work of the heart by physical rest is always the prime consideration; but, as heart failure interferes with breathing and the patient finds that this is most easily done when he sits up, it is usual, in fact necessary, for a sitting posture to be maintained, so that by this means benefit in breathing and lessening of the work of the heart are achieved at the same time. In cardiac rheumatism in children it is probably easier to keep them quiet, and so to reduce the pulse rate, if they are compelled to lie down. In these cases, of course, heart failure is not necessarily present, but when complications such as pericarditis and its associated pulmonary changes are present it is then necessary for the patient to be kept well propped up.

Inheritance of Werdnig-Hoffman Disease

Q.—*A couple with no trace of consanguinity had a son, in 1941, who died at five months of progressive spinal muscular atrophy. Another son died in 1943, again at the age of five months, of the same complaint. There is no family history of any neurological disorder. What are the chances of a third pregnancy ending similarly?*

A.—Progressive spinal muscular atrophy (Werdnig-Hoffman disease) is recessive, and the chances of the next child having it are one in four. The fact that the first two children died of it does not affect the chances any more than the fact that a tossed coin landed head up twice will affect the probability that a third toss would give a different result.

Cure of Syphilis

Q.—*If syphilis is diagnosed at the stage of the primary chancre, can the patient be guaranteed a cure? Would you outline briefly the accepted modern method of treating syphilis, and state whether there is unequivocal evidence that such treatment, if carried out thoroughly, does in fact cure the condition.*

A.—Much depends on whether treatment is initiated before the serum reactions have become positive. In sero-negative primary syphilis *adequately treated* there is at least a 95% chance of cure; in the sero-positive stage it is somewhat lower. Approximately 25 g. of neoarsphenamine and 10 g. of bismuth metal, given over a period of about a year, will bring about cure in the majority of cases of early syphilis, provided that treatment is administered regularly and that the patient does not exhibit intolerance to the drugs. The earlier treatment is started, the greater the probability of cure. Recently penicillin, in a total dosage of about 2,400,000 Oxford units, has given remarkable results, but some arsenic and bismuth should be given as well—say twelve injections of each—to be on the safe side; it is too early as yet to say whether permanent cure will result. It is assumed that by "cure" is meant negative serum reactions and absence of signs and symptoms over a period of many years.

INCOME TAX

Future Sale of Car

M. C. proposes to buy a new car for, say, £400. He points out that in two years' time it may have to be sold at a normal price much lower than present prices would suggest, and asks whether in the event of its being then sold for, say, £100, he would receive the full amount of his loss as a deduction for income-tax purposes.

*** Yes. The deduction can then be claimed as a "balancing allowance" under Section 17 of the Income Tax Act, 1945—provided that that Act comes into force as from April 6, 1946, the date specified in the Finance Bill now before Parliament.

Free Residence

C. H. contemplates accepting employment on terms that he receives £700 and in addition occupies rent free a furnished house belonging to his employer. He inquires as to the position generally, and asks what expenses he can claim.

*** The gross amount of liable income will be £700; the benefit of free residence will not be taxable as he will (presumably) have no right to let the furnished house. Expenses can be claimed to the extent that they are incurred "wholly, exclusively, and necessarily in the performance of the duties of the office." For example, the cost of running a car can be claimed—subject to a reasonable deduction from the total cost in respect of private use—but the monthly instalments paid for the purchase of a car are "capital" payments and cannot be claimed for income-tax purposes. As patients are not seen at the residence there is little if anything that can be claimed for the cost of having someone on the premises to attend to callers, telephone messages, etc.

Travelling Expenses

A. L. is an R.M.O. whose duties as such comprise treatment of out-patients in a near-by town. This involves travelling 56 miles a week; no travelling expenses are borne by the hospital authority. Can he claim an allowance for such expenses?

*** Yes. This is apparently a case in which the duties of a single employment have to be exercised in two places, and the cost of travelling between them is necessarily incurred in performing the duties of that office or employment. Train fares would be allowable. If a car is used the amount to be claimed is a reasonable proportion of the running costs, including insurance, licence, etc. The usual basis of estimation is the mileages of the personal and professional use respectively.

Payment in Lieu of Residence

G. H. has accepted an appointment at a salary plus £100 in lieu of residence, and asks whether the £100 is liable to income tax?

*** Yes, it is liable. The practice as to lodging and provision allowances in the Forces—i.e., to regard such allowances as not being taxable—does not extend to civilian allowances of a similar nature. Judicial dicta on the point are such as to render hopeless an appeal based on the law as it stands. The fact that the recipient of the allowance may be maintaining his family elsewhere does not affect the question.

Acquisition of an Additional Practice

J. H. has owned practice A for many years, and purchased practice B as from April 1, 1944. The net profits of the two practices for the year to April 5, 1945, were respectively £282 and £326, and a combined assessment has been made for 1945–6 (on the normal previous year's basis) of £608. In addition an assessment has also been made for 1944–5 on the amount earned in that year from practice B. Is this correct?

*** Yes. The operation of the previous basis is apt to be confusing unless it is borne in mind that it applies not to the income of the individual but to the source of the income. In the first year of ownership of the source there is no "previous year", and the income is assessable on the basis of the current year. Thus in 1944–5 J. H. had two sources of income, A and B; his earnings from the old source (A) were chargeable to tax on the *previous* year's basis, but the income from the new source (B) is liable on the *current* year's basis. When the second year arrives both sources are chargeable on the previous year's basis, and the amount of the first year's profits of the new practice accordingly appears twice in the assessments. But the tax on that amount is paid for different years. Appearances notwithstanding, there is no true double assessment; J. H. had the income from both sources for 1944–5, and equitably tax is due on the combined amounts for that year as well as for 1945–6.

LETTERS, NOTES, ETC.

A Case for Diagnosis

Fl. Lieut. G. A. POWELL-TUCK writes: When stationed near Karachi, N.W. India, the following case presented signs which to me were unique and interesting, and I hope that some reader will be able to suggest the diagnosis. On Dec. 24, 1944, an officer obviously very concerned showed me the front of his right forearm. One inch above the wrist and on the flexor aspect there was an inflammatory area the size of a five-shilling piece, and in the centre of it a tiny perforation the size of a pinhead. The interesting point was that from the small perforation exuded a blue colouring matter identical with that which is produced when an indelible pencil has been moistened with water. The history given was that the officer while drying himself after taking an improvised "bath" had been bitten by something. He was treated for mild shock while a thorough search was made in his quarters for spiders, scorpions, etc., but without success. Hot saline fomentations were applied every four hours for 48 hours, and he was kept under observation each succeeding day for five days. As the condition remained unaltered bacteriological investigation was carried out at the nearest hospital. This was negative. A few days later he was admitted for further observation, and discharged at the end of a week with the entire forearm encased in plaster-of-Paris. The case was removed on Feb. 9, 1945. The perforation had healed and there was no evidence of inflammation, but the blue colour, though less distinct, persisted. It was the general opinion that the condition had been self-inflicted, but later it was proved beyond doubt that this was not so, because the same condition arose on two subsequent occasions in two other officers. In each of these instances the same colour was seen but without the inflammation or central perforation.

Treatment of Warts

Mr. G. R. EMBY (chemist, Natal, S. Africa) writes: In connexion with a question under the heading "Multiple Warts" (Aug. 25, p. 271), may I recall a reference which may be of some assistance. I refer to an article, "'Tips' (for G.P.s only)," by Dr. J. F. Haegert, which appeared in the *South African Medical Journal* (1942, **16**, 38). The tip as regards warts is the consumption of 1/2 pint of lime-water daily for one week. Incidentally syrup is used a great deal in South Africa for external application to warts on cattle. Might not doses of calcium saccharate, perhaps with vitamin D, be of some help in the treatment of warts on humans?

Morphine Prophylaxis of Paralytic Ileus

Dr. H. L. MACKINTOSH (Troon) writes: The writer of the article on prophylaxis of paralytic ileus by administration of morphine (Oct. 20, p. 528) may be interested to know that in Dr. Clarke's (homoeopathic) *Dictionary of Materia Medica* ileus is given as one of the indications for the use of opium in homoeopathic dosage. One of its indications is given as: "Peristaltic action entirely suspended; even reversed peristalsis with faecal vomiting." Undoubtedly they are dealing here with the Arndt-Schulz law on poisons, which says that substances which in large doses kill the cell, in smaller doses inhibit its action, and in smaller doses still actually stimulate. And also what may in one person be sufficient to inhibit in another merely stimulates. Who has not seen labour pains in a tired patient roused to violent activity by a small dose of morphine when the intention was to procure rest and sleep; or the patient who is thoroughly roused by a dose of morphine given to procure sleep?

Longevity

Mr. ALFRED TILLING writes: With reference to the query put by Prof. Major Greenwood in his letter (Nov. 3, p. 624) as to the "impossibility or improbability" of a human being living to the age of Methuselah, a recently published autobiography by an English peer gives an account of a speech made by another well-known nobleman on the occasion of his golden wedding. He said: "I must tell you that I experienced rather a shock the other day. In the course of my researches connected with a fixed Easter and calendar reform I was rather surprised and horrified to find that I was two years older than Methuselah. He apparently belongs to an era when lunar months were counted years. So instead of living 969 years, Methuselah was only 79 when he was cut off. Abraham and Isaac, who lived in an era when about 5 months went to the year, were only 72 and 74." Most Bible students would agree with the foregoing. Only people with a certain amount of scientific knowledge, and with the art of writing, would be able to record "birthdays." With people of primitive culture there was, and is, no time measure other than the moon and the seasons. The meaning of "season" or "year" varies in different parts of the world if based on husbandry or agriculture. In a territory where there are "the former and the latter rains" there may be said to be a "six-months year," and the "time-rules" of the days of the patriarchs of Genesis differ materially from our present calendar. A two-shilling booklet entitled *The Genesis Mosaic*, by Cullen Young (issued by the Religious Education Press, Wallington, Surrey), deals with the subject and is well worth reading.

Dr. P. B. CRONE (Norwich) writes: The problem of the possibility of surviving to 150 years discussed by Prof. Major Greenwood (Nov. 3, p. 624) may be looked at from a slightly different angle. Taking q_x to be constant at 0.5 for ages over 90, more than 5×10^{11} persons of 90 years would need to be observed to make the chances even of at least one of them attaining the age of 150 years. To accumulate such a number with a birth rate of 30 and a world population of 2×10^9 would require 3×10^{11} years, assuming that 1 in 40 infants lives to 90 years. The number of survivors at ages over 90 might be given by the formula:

$$\text{Survivors} = q^n \times P$$

where q = probability of dying in one year, n = years over 90, and P = survivors 90 years old. But it is unlikely that sufficient annuitants can be collected to distinguish between this formula and

$$\text{Survivors} = \left(q^n - \frac{n}{60} q^{60}\right) P$$

unless considerable numbers could be observed at ages over 140, or indeed a single person survived to 150 years. Yet this second formula, though not appreciably affecting survival at ages up to 140, would imply that it was impossible to reach 150 years.

Corn in Egypt

Dr. LOWELL WEBB writes: The annotation "Whose Loaf?" (Dec. 15, p. 853) states that the first civilization was made possible because "wheat grew naturally in the Nile Valley." Surely this is incorrect? Wheat never grew wild in Africa, but it did in South-West Asia, especially Mesopotamia, Syria, and Palestine. It was barley which grew naturally on the banks of the Nile in Upper Egypt—a grain which matures early, needs less water than any of the other cereals, and is suited to a rainless country dependent upon river inundation for its water supply: the oldest food—and drink—of the human race. Wild wheat, as emmer, was probably imported into Egypt from Palestine, and later the superior type of bread-wheat, but it took about seven hundred years for it to supplant the original barley. Presumably the "Battle of the Loaf" was not unknown in those days. It is interesting to recall that it was from Palestine—the cradle of the wild cereals—that the historic party of ten brethren was forced to set out, in a time of famine, to search for the product of their own homeland—"Corn, in Egypt."

Fat Atrophy and Insulin Injections

Dr. E. S. FENNELL (London, W.) writes: Further to the answer on fat atrophy and insulin injections (Nov. 3, p. 633) I would suggest, in addition to giving the injections at different sites, giving the needle a more or less perpendicular direction and injecting the insulin below the fatty layer. This seems to be the only possible escape from the fat atrophy which follows these injections in those people who are sensitive to them.

Sale of U.S. Government Publications

History was made at a brief and modest meeting held on Nov. 20 at His Majesty's Stationery Office, Kingsway, London, under the chairmanship of Sir Norman Scorgie, Controller of the Stationery Office and King's Printer. The American Ambassador, Mr. John G. Winant, officially inaugurated the sale of American Government documents in England, a service which he described as unprecedented between nations, enabling any person in the United Kingdom to order any publications of the United States Government Printing Office through his local bookseller. Subscriptions to U.S. official periodicals (including several in the fields of medicine and public health) will also be accepted at York House for supply direct from the United States. In this connexion we remind readers that Mr. A. B. Toth, on leave from the Library of Congress, has been appointed acting director of the American Library, 1, Grosvenor Square, W. (library hours 9–7, except Saturdays, 9–1), being also attached to the Embassy as publications officer, representing the Federal Libraries, including the Army Medical Library, in Washington, with a view to facilitating exchange of publications between corresponding institutions. Mr. Toth is likely to be in London for a year at least.

Corrigendum

The report in the *Journal* of Dec. 8 (p. 814) refers, with the exception of the first three lines, to the Bristol Hospitals Fund, and should have been so headed; its membership exceeds 58,000. The Bristol Hospitals Provident Fund, a scheme for assisting persons of moderate means to meet the cost of illness, was inaugurated in March of this year and already has a membership of nearly 2,000.

INDEX TO VOLUME II FOR 1945

READERS in search of a particular subject will find it useful to bear in mind that the references are in several cases distributed under two or more separate headings—for example, Brain and Cerebral; Heart and Cardiac; Liver and Hepatic; Renal and Kidney; Cancer and Carcinoma; Child and Infant; Goitre and Thyroid. Subjects dealt with under various main headings in the JOURNAL have been set out in alphabetical order under their respective headings—for example, "Annotations," "Correspondence," "Leading Articles," "Obituary," "Reviews," etc. Original Articles are indicated by the letter (O).

A

ABBOTT, J. M. (and others): Results of routine investigation for Rh factor at the N.W. London depot, 273 (O); correspondence, 400
Abdomen: Penetrating wound of, 74—Three cases of closed intra-abdominal injury (H. N. G. Hudson), 419 (O)—Five cases of unusual syndrome consisting of intense paroxysmal abdominal pain and high fever (S. Siegal), 437—Recurrent paroxysmal pain (annotation), 889
ABEL, Lawrence: Management of the permanent colostomy, 229
ABERCROMBIE, Michael (and M. L. JOHNSON): Premedical zoology, 262 (O); correspondence, 334, 404—*New Biology*, 533
— R. G.: Galvanic stimulation of denervated muscle, 622, 898
ABERCROMBY, B. M. L.: Foreign bodies in bronchi and oesophagus in children, 647 (O)
Abortion. *See* Obstetrics
ABRAHAMS, Sir Adolphe: Press publicity, 444—Treatment of duodenal ulcer, 473—Training of clinical teachers, 663
Abrami, Pierre, death of, 200
ABRAMS, Mark: *The Population of Great Britain: Current Trends and Future Problems*, 572
Abscesses, haemolytic streptococcal peritonsillar, treated with penicillin, 213
Absorbers, circle, valve disk for (J. Clutton-Brock), 572
Academy of Medicine, French: Centenary records, 228
— New York, of Medicine: *The March of Medicine*, 288
ACADEMY, ROYAL, OF MEDICINE IN IRELAND:
Section of Pathology: Synergic action of penicillin and sulphathiazole (J. W. Bigger), 621
Section of Surgery: Plastic surgery (A. B. Clery), 780
Accidents: Effects of the rope in rock-climbing accidents, 705—Road accidents while "under the influence," 870
Acetanilide, sulphaemoglobinaemia due to (S. Lazarus), 565 (O)
Achalasia of cardia, case of (John L. D'Silva and E. C. Turton), 461
Achard, Emile Charles, obituary notice of, 138
Acid, phytic, and calcium deficiency (annotation), 610; correspondence, 746, 832
Acidaemia in gas gangrene, 449
Acidity, gastric: Relation between gastric acidity and the anterior-pituitary-like hormone content of urine in pregnant women (Stanley Way), 182, (O)
ACKMAN, F. Douglas (and Fraser B. GURD): *Technique in Trauma. Planned Timing in the Treatment of Wounds, including Burns*, 849
Aclasis, diaphysial, inheritance of, 793
Acne vulgaris, penicillin for, 73
Acroparaesthesia" and so-called "neuritis" of the hands and arms in women: their probable relation to brachial plexus pressure by normal first ribs (F. M. R. Walshe), 596 (O); correspondence, 701, 746, 820
Actinomycosis successfully treated with penicillin: report of 2 cases (A. J. C. Hamilton and H. J. R. Kirkpatrick), 728 (O)
Acupuncture, 34, 144
ADAM, James R.: Domiciliary midwifery and the family doctor, 365
ADAMS, A. R. D. (and others): Tropical medicine, 895
Adder-bite, notes on, in England and Wales (C. W. Walker), 13 (O); in the Highlands of Scotland, 35; correspondence, 172, 242
ADDISON, G. M.: Training for released Service doctors, 707
Addison's disease: A syndrome resembling, with severe anaemia, steatorrhoea, and melanuria (S. Locket), 417 (O)
Adrenaline, intravenous, 73, 342
Advertisements of permanent appointments, 327
AGAR, H. (and others): Arterial aneurysm following injury to iliac vessels: report of 2 cases, with commentary on large transfusions, 451 (O)
Aged, the. *See* Geriatrics
Agglutinins, cold (annotation), 929
Agranulocytosis after sulphonamide sensitization: penicillin therapy: death from *Ps. pyocyanea* septicaemia (J. D. Cameron and J. R. Edge), 688 (O)
AHRENFELDT, R. H.: Medical aspects of prisons, 546
AIRD, Ian: Acute non-specific mesenteric lymphadenitis, 680 (O); correspondence, 818, 861
AITKEN, C. J. Hill: Women in labour, 272
ALCOCK, Helen Bower: Spinal analgesia in operative obstetrics, 818
Alcohol: "Under the influence," 234, 333—Alcoholism, 633
ALDRED-BROWN, G. R. P.: Mono-articular osteo-arthritis of hip, 28
Aldridge, Capt. Bernard Henry Mooring, previously reported prisoner of war, now believed lost in Japanese transport, 906
Alford, Cyril Wolrige, obituary notice of, 787
ALLAN, Alastair: An improved artificial pneumothorax needle, 607; correspondence, 742, 783, 821, 862, 899
ALLEN, Clifford: Diet in morphine addiction, 705
— F. R. W. K.: Constriction ring, 414—Abdominal nerve block, 547—"The frozen pelvis," 794

ALLERGY:
Alkaloids, 35
Book review, 321
Disease, allergic, in a family, 753
Egg-prepared vaccines (R. G. Park), 570
Fish in an asthmatic, 108
Hay-fever: Plants (book review)—Treatment and desensitization, 73
"Leucopenic index," 793
Moulds in England (E. M. Fraenkel), 14
Quinine and mepacrine, hypersensitivity to (John Orr), 604
Sulphonamide, 633
Wound-healing, delayed, role of allergy in (annotation), 927
See also Sensitivity

Allkins, W. J., death of, 102
Alphabetical pride, 484
Altitude, high, effects of, on man: Oliver-Sharpey lectures (B. H. C. Matthews), 75 (O); leading article, 123; correspondence, 199. *See also* Stress
Alurralde, Mariano, death of, 304
AMBROSE, Arthur J.: Ergot and abortion, 144
"Ambulance-chasers": A solicitor at fault, 371
American medical practice (book review), 157
Amino-acids of food (book review), 48
Amoebiasis: Unconfirmed, treatment of, 27—Treatment of, 128—In Natal, 266
Amputations. *See* Surgery

ANAEMIA:
Colds: Anaemia in the child with frequent colds, 703
Haemoglobin levels in the 4th year of the war (leading article on M.R.C. special report), 89
Haemolytic, acute, due to sulphonamide administration (F. B. Cockett), 884
High-colour-index anaemia due to vitamin C deficiency (B. Gottlieb), 119 (O)
Macrocytic: Tropical, neurological complications in (D. W. Degazon), 461—Observations on oedema occurring during the course of (E. G. Holmes), 561 (O); correspondence, 782
— nutritional (leading article), 501; correspondence, 550 (corrected, 586), 702
Pernicious: And carcinoma of stomach (annotation), 503; correspondence, 664, 741—Subacute degeneration of brain in (annotation), 855
Syndrome resembling Addison's disease, with severe anaemia, steatorrhoea, and melanuria (S. Locket), 417 (O)

ANAESTHESIA:
Abdominal nerve block, 547
Anaesthetic risks, 402, 511, 583, 623, 746, 897
Aneurysm, traumatic: Anaesthesia and blood transfusion in 14 cases (I. Schalit), 921 (O)
Blind intubation, 512, 623
Chloroform, 144
Endotracheal connexions, wide-bore (H. L. Thornton), 534; correction, 592
Ether, open: Shock and, 938

ANAESTHESIA (*continued*):
Gas cylinders, identification of, 233
General, and the temperature of inhaled gases (Arthur Mills and Margaret Soutar), 646 (O)
History of (book review), 571
"Hyperbaric" and "hypobaric," 368, 450
Inhalation, forthcoming book on, 356
Local, in dentistry (book review), 322
Obstruction, threatened, of air passage, 512
Pentothal, continuous, a simple apparatus for (H. Marcus Bird), 289; correspondence, 511
Stovaine, 474, 545
Trichlorethylene, 440—In midwifery, 99, 331—In general practice, 403—Acute yellow necrosis of liver following (K. N. Herdman), 689 (O); correspondence, 784, 820
Tubing, anaesthetic, support for (O. R. Tisdall), 925
Vomiting, post-operative, in relation to anaesthetic time (J. Morland Smith), 217 (O)

ANALGESIA:
Caudal, apparatus for, 36
Midwives: Training of, in gas-and-air analgesia, 32—Analgesia by, 751
Nupercaine, heavy spinal, in operative obstetrics; with report on 394 cases (Louis Resnick), 722 (O); correspondence, 818, 898, 939
Spinal: Persistent pain after, 307—Meningitis after (Michael Kremer), 309 (O); correspondence, 402, 511—Sixth-nerve paralysis after (W. A. Fairclough), 801 (O); correspondence, 897
See also Anaesthesia

Anamnestic reaction, 35
Anastomosis. *See* Surgery
Anatomy: Nomenclature, 414, 520—Basic training in (book review), 497—*Cahiers de Dessins d'Anatomie* (book notes), 572—The teaching of human anatomy, 740
ANDERSON, A. B.: Therapeutic use of protein hydrolysates, 815
— David Irving, obituary notice of, 238
— Mary R.: The aim of medicine, 824
— R. E.: Medical prisoners in Singapore, 660
— W. W.: Lead palsy, 107
Aneurysm, aortic: An unusual case of ruptured (D. H. Irwin and E. Frankel), 426
— arterial, following injury to iliac vessels, report of 2 cases, with commentary on large transfusions (H. Agar and others), 451 (O)
— traumatic: Anaesthesia and blood transfusion in 14 cases (I. Schalit), 921 (O)
Angina, Ludwig's, 369, 440, 512, 622 (corrected, 676)
— pectoris, testosterone in, 171
— Vincent's, treated with penicillin (B. M. Schwartz and P. L. Shallenberger and others), 382—41 cases treated by penicillin (H. E. Twining and others), 718
Aniline derivatives, sulphaemoglobinaemia due to (S. Lazarus), 565 (O)
Annals of Science, publication restarted, 322

Annotations:
Abdominal pain, recurrent paroxysmal, 889
Advertisements for permanent appointments, 327
Aged, care of the, 162
Agglutinins, cold, 929
Allergy, role of, in delayed wound healing, 927
Anaemia, pernicious: And carcinoma of stomach, 503—Subacute degeneration of brain in, 855
Ariboflavinosis, ocular signs of, 889
Barnardo centenary, 53
Biotin, 655
Blood grouping, medico-legal applications of, 360
Bread: Whose loaf? 853
British Council's Medical Department, 90
Bronchitis and pneumonia in London infants, 466
Burns of eye, grafting for, 190
Caffeine: And peptic ulcer, 504—Action of, in fatigue, 773
Chemotherapy of fungus diseases, 326
Children: The exceptional child, 293—Homeless, 394, 610—Case for nurseries, 735—Nuffield chair of child health, 855
Cortical hormone, output of, 854
Cystometry, 293
D.D.T.: Further results, 260
Deaf, help for, 126

Annotations *(continued)*:
Digitalis, standardization of, 359
Education "whereabouts," 394
Emotion: Physiology of, 191—A new reaction to, 504
Ergotamine for migraine, 654
Experimental study of a man and his stomach, 431
Folic acid, 91
Foods: Canned, 538—A little of what you fancy, 810
Going home, 20
Head injury cases, after-care of, 810
Health: The new Minister, 191
—— Service, integrated, 360
Heart in influenza, 359
Histoplasmosis, 125
Hysteria, canine, 432
I.A.M.C. Journal, 126
Indexes, half-yearly, 20, 929
Insulin for delirium tremens, 91
Intelligence and epilepsy, 773
Italy, nutritional surveys in, 575
Journals: Out of bondage (Norway), 655—New quarterlies, 735
Labour and medicine, 161
Leprosy control in India, 466
Leucotomy, prefrontal, 854
Ligation of patent ductus, 612
Lightning, effects of, 575
Listerellosis, human, 890
Lumbar ganglionectomy, 92
Lymphocytes and antibodies, 223
Medical benevolence, 735
—— films, catalogue of, 326
—— war relief, 772
Medicine and progress of thought, 53
Ménière's syndrome, 52
Midwives, supply of, 929
Milk pasteurization in Adelaide, 828
Narcolepsy as neurosis, 20
Narcotics: World control of, 261—Antinarcotic campaign in Egypt, 612
Neurological training of the future, 292
Nobel Prize for medicine, 612
Nutritive value of foods, 293
Penicillin: Delaying excretion of, 292—In bacterial endocarditis, 734
Phytic acid and calcium deficiency, 610
Pituitary stimulation by light, 695
Potassium thiocyanate poisoning, 393
Psychiatric clinics, wartime work of, 467
Psychosis due to mepacrine, 162
Queen Charlotte's, the new, 811
Radiotherapy for vasomotor rhinitis, 634
Relaxin, 576
Renal failure, dietary accommodation in, 696
Salicylates: Toxicity of, 19—Salicylate and pantothenate, 224
Scientific instruments, the making of, 538
Shock, progress in investigation of, 695
Social work, joint effort in, 261
Sprouting legumes, 505
Sudan, health of, 467
Sulphonamide chemoprophylaxis in wounds, 190
Surgeon, a great abdominal: Centenary of Lawson Tait, 92
Syncope, some causes of, 772
Syphilis in malaria, false positive tests for, 327
Taking the waters, 259
Thyroid and sex function, 772
Transvaal, undulant fever in, 505
Tuberculosis: Lancashire looks back, 260—Pathogenesis of, 537—In Wales, 811
Ulster medical war memorial, 855
Ultra-violet apparatus, efficiency of, 890
Uterus, action of magnesium on, 393
Vagotomy for peptic ulcer, 611
Vitamin D, mode of action of, 432
—— K in urticaria, 224
Women on war work, 325
Yugoslavia: Medical relief in, 696

Anoxia at high altitudes, 75
Anthrax: Treatment of human cutaneous anthrax with penicillin (H. Stott), 120
Antibiotics: Use of micro-organisms for therapeutic purposes (Sir Howard Florey, Lister Memorial Lecturer, R.C.S.), 635 (O); leading article, 652
Antibodies, lymphocytes and (annotation), 223
Antispasmodics, 675
Anti-vivisection societies: Not charitable bodies, 265—And income tax (leading article), 291
Anuria, vascular collapse with, 373
A.P.T. injection, nodule at site of, 908
Apoplexy, pancreatic, aetiology of (Judson T. Chesterman), 461
Appendicitis, acute: Treatment of—a study of 480 consecutive cases (Alexander Lyall), 719 (O); correspondence, 863—Treatment and end-results (James Moroney), 729
—— left-sided, a case of (J. W. L. Haddon), 569 (O)
APPLETON, A. B.: Review of *Anatomy as a Basis for Medical and Dental Practice*, by Donald Mainland, 497
Appointments, 33, 140, 170, 191, 201, 202, 270, 297, 305, 327, 338, 339, 399, 411, 448, 471, 482, 517, 518, 632, 752, 791, 829, 870, 907
ARCHER, G. T. L.: Bactericidal effect of mixtures of ethyl alcohol and water, with special reference to sterilization of the skin, and a note on the comparable effects of ether, 148 (O); leading article, 222
Arcus senilis, avitaminosis and, 824
Argentina: Argentine-British Medical Centre established at Buenos Aires, 227
Aribóflavinosis. *See* Vitamins
Arloing, Fernand, death of, 447
Arms: On "acroparaesthesia" and so-called "neuritis" of the hands and arms in women: their probable relation to brachial plexus pressure by normal first ribs (F. M. R. Walshe), 596 (O); correspondence, 701, 746, 820
ARMSTRONG, T. G.: Asymptomatic kala-azar in soldiers from over-seas, 918 (O)
Arthritis: T.A.B. tartrate, 71—Sodium bismuthyl tartrate for, 106
—— osteo-, monoarticular, of hip, 28, 99
—— rheumatoid: Therapeutic effect of induced jaundice in (Frances Gardner and others), 677 (O); correspondence, 782, 859, 864
—— Sudeck's, 908
Artificial limbs (leading article), 502
Ascaris lumbricoides, 107
Aschaffenburg, Gustav, death of, 409
ASHERSON, N.: Fenestration for otosclerosis, 509
Ashton, Col. Basil Cedric, death of, on active service, 32
Association of Anaesthetists of Great Britain and Ireland: Annual general meeting, 780
—— British Medical: Fifty thousand members (leading article), 125—The Representative Meeting (leading article), 159—Presidential address (H. S. Souttar), 163—Scholarships in aid of scientific research, 164—Paddington Division: Peptic ulcer, 739—New quarterly journals, 735—Library in Hong Kong saved, 773
—— —— Orthopaedic: Bone and soft-tissue deficiency in the limbs, 22—Annual dinner, 659—Annual meeting, 737
—— —— Paediatric: The problem of rickets, 736
—— —— of Physical Medicine: 1945 report, 130
—— —— of Urological Surgeons: Annual general meeting, 227
—— of Clinical Pathologists: Summer meeting, 194—*Proceedings*, 498
—— Czechoslovak, of Clinical Pathologists, 777
—— —— Medical, in Great Britain: *Notes*, No. 2, 390
—— Family Planning: Meeting on seminology, 230
—— Indian Research Fund: Report of Scientific Advisory Board, 390
—— of Industrial Medical Officers: Office-bearers elected, 739
—— Mental Hospitals: Proposals for reform (J. Ivison Russell), 265
—— National, of Maternity and Child Welfare Centres and for the Prevention of Infant Mortality: National conference, 59
—— Norwegian Medical: A journal out of bondage (annotation), 655
—— Scottish Blood Transfusion: Sir John Fraser's report, 880
—— of Special Libraries and Information Bureaux (A.S.L.I.B.): Annual conference, medical topics, 541
ASTBURY, J. S.: Caffeine and peptic ulcer, 627
Asthma: Diphtheria immunization in asthmatic child, 171—Treatment of, 171—Iodine for, 340—After pneumonia, 374—Bronchial, treatment of, 412
ATKINS, W. R. G. (and others): Dermatitis from wearing Army spectacles, 40 (O); correspondence, 198
Atmospheric pressure, low, effects of, *per se*, 77
Atom, Britain and the, 589
Atomic energy: Committee on, 305—Three Powers' statement, 790
Atresia, duodenal, in a newborn infant (Patricia Leitch), 885
AUBERT, E. F. (and others): An unusual case of erythroblastosis foetalis, 648 (O)
Aubrey, Thomas, obituary notice of, 905
Australia: Lady Gowrie Child Centres: *The Health Record*, 220—Infantile paralysis in Queensland, 869—Milk pasteurization in Adelaide (annotation), 928
Austria: Health services (book notes), 463—Nutrition in Vienna in September, 1945 (Magnus Pyke), 839 (O); leading article, 852
AVERY, Harris: Subcutaneous oxygen for sciatica, 703
Ayarraray, Lucas, death of, 409
AYKROYD, W. R.: *Nutrition* (Oxford Pamphlets on Indian Affairs), 807
AYMARD, J. L.: An eyeless needle, 74
AYNSLEY, T. R.: Shortage of nurses, 865
AYRE, Philip: Acute yellow atrophy after trilene anaesthesia, 784
Azevid, Manoel Franciso de, death of, 304

B

Babington, Lieut.-Col. Gilbert Cleary, death of, 101
Bacha, Ardeshir Pestonji, obituary notice of, 336
BACHARACH, A. L.: Dietitians, 858
BACHMEYER, Arthur C. (and Gerhard **HARTMAN**): *The Hospital in Modern Society*, 691
Bacteria in relation to milk (book review), 85
BADENOCH, Alec W.: Descent of testis in relation to temperature, 601 (O), 942; correspondence, 704, 860
BAILEY, Hamilton: Ludwig's angina, 440
—— J. Shackleton: Doctors and the social trend, 235, 368—Buying and selling of practices, 859
BAINES, H.: An institute of medical photography, 478
Balfour, Margaret Ida, obituary notices of, 866, 904
Ball, Sir William Girling, obituary notices of, 138, 200
BANKART, A. S. Blundell: Drilling the glenoid, 197
BANNEN, J. E.: Sequelae of emphysematous lung, 665; correction, 910
Bar, medical men called to, 33
BARBEQUOT-BUTAVAND, Arlette: *Cahiers de Dessins d'Anatomie*, 572
BARBER, C. H.: Training the general practitioner, 303
BARCLAY, J. A. (and others): Treatment of infective hepatitis, 298; leading article, 573
—— W.: Piling Pelion upon Ossa, 204
Barclay-Smith, Edward, obituary notice of, 67
BARFORD, J. E. Q.: Effects of the rope in rock-climbing accidents, 705
Bark, E. Gilbert, obituary notice of, 945
BARKER, G. B. (and J. M. **LEVER**): Osteomyelitis of skull due to *Salmonella typhi*, 459 (O)
BARKWORTH, H.: *Advisory Dairy Bacteriologists*, 692
Barlow, Thomas William Naylor, obituary notice, 906
BARNARD, H. F.: An indwelling syringe for penicillin administration, 498—Epidemic diarrhoea and vomiting, 666
Barnardo Centenary, 53
BARNES, Josephine: Antepartum haemorrhage, 780
Barrett, Lady (Florence Elizabeth), obituary notice of, 237
—— N. R. (and Dillwyn Thomas): Hydatid disease of lung, 197
BARROW, M. Leitch (and others): Results of routine investigation for Rh factor at the N.W. London depot, 273 (O); correspondence, 400
—— R. Murray: Rehabilitation of fractured limbs, 332, 703
BARRY, W. Kevin: Haematuria following injection for varicose veins, 668
BASKETT, B. G. M.: The Beveridge report, 65
Bassini's operation. *See* Hernia *and* Surgery
BASTENIE, P. A. (and others): Food consumption of working-class and lower-middle-class families in Brussels during January, 1945, 351 (O)
BATCHELOR, J. S.: Congenital dislocation of hip, 737
BATEMAN, Donald V.: Names of drugs, 714
BATES, J. Vincent: Sore finger-tips in industry: protection by hydrogen peroxide, 154 (O)
BATTY, A. M. Ferens: Acute inversion of uterus, 367
BAUER, A. W.: Ptyalism of pregnancy, 108
—— Julius: *Constitution and Disease*, 2nd ed., 572
Baum, Lieut. Gerard, death of, 335
BAUMGARTNER, J. G.: *Canned Foods: An Introduction to the Microbiology*, 2nd ed., 886
BAUWENS, P.: Method of measuring action potentials of normal and denervated muscles, 24
BEACH, H. L. Whitchurch (and John K. **RENNIE**): Four cases of typhus fever in Great Britain, 153 (O)
BEADNELL, L. M. M.: Speech training, 172
Beale, John Foster, obituary notice of, 787
BEARD, T. C. (and J. C. H. **HANSON**): The saline infusion bottle, 822
BEARN, F. A.: The "stamping" of the Guards, 865
BEATTIE, John: Surgical catgut, 743
—— Thomas, obituary notice of, 67
Beatty, Martyn Cecil, obituary notice of, 68
Bed-sores, apparatus for treating (J. F. Neil), 390; correspondence, 675
BEGG, N. D.: Prophylaxis of whooping-cough, 131
Beit Memorial Fellowships: Resignations, appointments, and elections, 193
BELCHER, R. (and A. L. **GODBERT**): *Semi-Micro Quantitative Organic Analysis*, 428
BELGIUM: Food consumption of working-class and lower-middle-class families in Brussels during January, 1945 (P. A. Bastenie and others), 351 (O)—Diphtheria incidence, 613—Undernutrition (leading article), 694
BELL, Doyne (and Ursula **JERRAM**): Tuberculin testing in children: a comparison of methods, 215 (O)
BELLAMY, W. A.: Effects of tobacco smoking on health, 342
Bell's palsy: Early treatment of (H. P. and C. M. Pickerill), 457 (O); correspondence, 556, 714
Belsen Camp, 64, 100, 303
BEN-ASHER, S.: Case of mitral stenosis with auricular fibrillation and embolus in the right kidney, 918
BENDIT, L. J.: Sleep-walking, 342
BENNETT, T. Izod: Hypertension (R.S.M.), 661; correspondence, 746
BENTLEY, F. J.: Public health services in U.S.A., 25
Benzedrine sulphate, use of, by psychopaths: the problem of addiction (H. J. Shorvon), 285 (O)
BERESFORD, G. W.: Surgical catgut, 937
BERGEL, F.: Vitamin C and extraction of teeth, 97—Patulin *et al.*, 143
BERGIN, Kenneth G.: Psychiatry in the Army, 508; correction, 556
BERNARD, A. V.: Poliomyelitis in Malta, 26
Beveridge report, 65—And White Paper (book review), 923
Bibliophils, problem for, 872
Biddle, Eric, obituary notices of, 336, 371
BIGGER, J. W.: Synergic action of penicillin and sulphathiazole, 621
Bile ducts: Relation between congenital obliteration of bile ducts and icterus gravis neonatorum (M. O. Skelton and Geoffrey H. Tovey), 914 (O)
Bile, Thomas, M.D.: physician to Henry VIII and Edward VI, 228

BINDMAN, Ellis: Congenital recurrent dislocation of head of radius, 354
BINTCLIFFE, E. W.: Pollicization of index finger, 739
Biological standards, international (Sir Percival Hartley: Walter Ernest Dixon Memorial Lecture, R.S.M.), 579
Biology and human welfare (book review), 533
"Biotin" ampoules (Ashe Laboratories), 122. *See also* Vitamins
BIRCH, C. Allan: Surgical conditions in medical patients, 364—Paradoxical embolism, with report of a case due to a ventricular septum defect, 727 (O)—Myxoedema induced by thiouracil, 806—Stethoscope *versus* x rays, 857
BIRD, H. Marcus: A simple apparatus for continuous pentothal, 289
Birmingham, Health of: M.O.'s report for 1944, 932
BIRRELL, J. F.: Otitis externa, 80 (O)
BISPHAM, William N.: *Malaria. Its Diagnosis, Treatment, and Prophylaxis*, 497
Bitterness, 407, 477, 548
BLACK, James: Blindness following haematemesis, 920 (O)
—— Kenneth: Climate and health, 334
—— K. O.: Cutaneous schistosomiasis involving *S. haematobium* eggs, 453 (O)
—— Norman, obituary notice of, 200
BLACKER, C. P.: *Eugenics in Prospect and Retrospect*, 534
BLACKFAN, Kenneth D. (and Louis K. DIAMOND): *Atlas of the Blood in Children*, 533
Bladder-neck obstruction due to non-malignant disease of prostate (H. Hamilton Stewart), 724 (O); correspondence, 864
BLAIR, L. G.: Stethoscope *versus* x rays, 856
—— R. H.: Toxic properties of sting-ray's sting, 267
Blast injury, a case of (B. B. Hickey), 218
Blindness: *See* Ophthalmology
BLINOV, Nikolai: Leningrad surgeons, 88
BLOCK, Richard J. (and Diana BOLLING): *The Amino-acid Composition of Proteins and Foods. Analytical Methods and Results*, 48
BLOND, Kasper: Mono-articular osteo-arthritis of hip, 99

BLOOD:
Agglutinogen P and Rh factor (leading article), 535
Anti-M iso-agglutinins in human serum (Marjory N. McFarlane), 883 (O)
Cancer and the blood, 449
Children, Atlas of the Blood in (book review) 533
Diastase values in a series of 89 cases of mumps (S. Zelman), 425
Eosinophil cell (book review), 606
Erythrocyte sedimentation rate: Significance of, 307, 584 (corrected, 676), 741, 823—Device for filling tubes, 308—Estimation of, at sea, 546—Anticoagulant *p*H in estimations, 782—Westergren technique, 940—The "14 points," 940
Examination, modern methods of, 272
Groups: Medico-legal applications of blood grouping (annotation), 360
Journal of Hematology, New York, 948
Pressure, low, 449, 518
Rh factor: Rh incompatibility as a cause of mental deficiency (leading article), 189; correspondence, 194—Alvarenga Prize (Philadelphia) awarded to Alexander S. Wiener for work on various types of Rh factors and their genetic transmission, 247—Results of routine investigation for Rh factor at the N.W. London depot (G. Plaut and others), 273 (O); correspondence, 400—Haemolytic disease and congenital syphilis in siblings: role of the Rh factor (Marjory N. McFarlane), 494 (O)—P and Rh (leading article), 535—The Rh factor and blood transfusion: observations on a group of Rh-negative individuals transfused with Rh-positive blood (William Curry Moloney), 916 (O)
Specific Gravities of Whole Blood and Plasma, Copper Sulfate Method for Measuring (U.S. Naval Research Unit), 534
Tests: In motorists, 827—For paternity, 871
Transfused, hypersensitivity to (Sheila Callender and others), 83 (O); annotation, 360
Transfusion: A pioneer in (Percy Lane Oliver Memorial Fund), 506—Debility after donation, 740—Transmission of hepatitis during, 783—Anaesthesia and, in 14 cases of traumatic aneurysm (I. Schalit), 921 (O)
Withdrawal of, transmission of infection during, 62

Blyth, Surg. Lieut. John Murdoch, missing, presumed killed, 371
Board, Central Midwives: Alteration of rules, 70
—— Conjoint, in Scotland: Licentiates admitted, 169, 672
BOHART, Richard M. and George E. (and Kenneth L. KNIGHT): *Keys to the Mosquitoes of the Australasian Region: Including a Synopsis of their Distribution and Breeding Habits*, 607
Boils, vulval and pubic, 34, 107
BOLAM, R. Mason: Rehabilitation of patients suffering from skin disease, 539 (O); correspondence, 628
BOLLING, Diana (and Richard J. BLOCK): *The Amino-acid Composition of Proteins and Foods. Analytical Methods and Results*, 48
Bone and soft-tissue deficiency in the limbs (British Orthopaedic Association), 22
BOOKLESS, A. S. (and J. M. NAFTALIN): Typhoid fever complicated by benign tertian malaria, 804 (O)
BOURNE, Aleck: *Synopsis of Obstetrics and Gynaecology*, 9th ed., 886
—— (and Leslie H. WILLIAMS): *Recent Advances in Obstetrics and Gynaecology*, 6th ed., 533
BOWDEN, A. Cornford: *Essentials of Local Anaesthesia in Dentistry*, 322
—— R. E. M.: Changes in human voluntary muscle in denervation and re-innervation, 487 (O); correspondence, 622, 745, 898
—— Ruth E. M. (and others): Galvanic stimulation of denervated muscle, 745
Bowyer, J. H., death of, during internment in Singapore, 660
BOYD, L. J. (and David SCHERF): *Clinical Electrocardiography*, 2nd ed., 427
—— William: *Pathology of Internal Diseases*, 4th ed., 768
B.P.C. *See* Pharmaceutical Codex
Brachial plexus: On "acroparaesthesia" and so-called "neuritis" of the hands and arms in women: their probable relation to brachial plexus pressure by normal first ribs (F. M. R. Walshe), 596 (O); correspondence, 701, 746, 820
BRADLEY, C. D. (and P. HOGG): Case of pneumococcal meningitis in newborn infant treated with sulphadiazine; recovery, 194
BRAILSFORD, James: The discovery of *x* rays (R.S.M.), 699
BRAIN, W. Russell (and Sir Hugh LETT): Hospital service plan, 936
—— —— (and E. B. STRAUSS): *Recent Advances in Neurology and Neuropsychiatry*, 5th ed., 497

BRAIN:
Abscess: Three cases of cerebral abscess complicating congenital septal defects of heart, 267
Anaemia, pernicious, subacute degeneration of brain in (annotation), 855
Cerebral cortex: Some new developments in the morphophysiology of the cerebral cortex (S. Sarkisov), 37 (O); correction, 242
—— fat embolism after electrical convulsion therapy (A. Meyer and Donald Teare), 42 (O)
Injury: A review of psychological work at the Brain Injuries Unit, Edinburgh, 1941 (O. L. Zangwill), 248 (O)

BRAITHWAITE, E. Wrigley: The child with frequent colds, 823
Branch, Stanley, obituary notice of, 671
BRAND, William: Psychiatry in the Services, 668
BRANSBY, E. R. (and Gertrude WAGNER): Diets of school-children in two industrial towns, 682 (O)
BRASH, J. C. (and 29 others): The teaching of human anatomy, 740
BRAUER, E.: ? abuse of sulphathiazole, 333
BRAY, W. E.: *Synopsis of Clinical Laboratory Methods*, 731
Bread: And nutrition (House of Lords debate), 630—Whose loaf? (annotation), 853—The flour in the bread, 940—Corn in Egypt, 950
Breast abscess, incidence of, 744, 862
—— feeding. *See* Infants
—— tumours, aspiration test in diagnosis of, 231, 299
BREEN, G. E. (and Cecil P. G. WAKELEY): The discovery of *x* rays, 747
British Commonwealth, the incidence and causes of blindness in (Arnold Sorsby), 557 (O)
BROADHURST, H. C.: Physiology and psychology of craving, 36
BROATCH, M. C.: Dietetic training, 857
BROCK, R. C.: Bronchial embolism in tuberculosis reinfection, 665
BROCKINGTON, F. C.: Nutrition in social medicine, 858
Bronchiectasis, bilateral, 271
Bronchitis in London infants (annotation), 466
Bronchus: Foreign bodies in bronchi and oesophagus in children (B. M. L. Abercromby), 647 (O)
BROOKS, Ross K.: Treatment of varicose ulcers, 816
Broughton, Alfred G. S., obituary notice of, 31
Brown, Alexander, obituary notices of, 304, 446
—— Capt. Alexander, killed, 335
—— Alexander (and Sidney Lionel TOMPSETT): Poisoning due to mobilization of lead from the skeleton by leukaemic hyperplasia of bone marrow, 764 (O)
—— F. C. R.: Dietitians in industry, 858
—— George (and others): Outbreak of epidemic diarrhoea and vomiting in a general hospital and surrounding district, 524 (O); correspondence, 627, 666, 746
—— Herbert H.: Sciatic "neuritis," 544—Subcutaneous oxygen for sciatica, 822
—— J. L.: Bitterness, 477
—— Kenneth Stocks, obituary notice of, 867
—— R. Christie (and others): *Midwifery. Principles and Practice for Pupil Midwives, Teacher Midwives, and Obstetric Dressers*, 2nd ed., 533
—— Robert Cunyngham, obituary notice of, 550
BROWNE, F. J.: Doctors and the social trend, 406
Bruce, Lewis Campbell, obituary notice of, 903
—— N. P.: Safe milk, 476
Bruising and rheumatism, 375, 520
BRYAN, T. B. L.: Sequelae of emphysematous lung, 817
BUCKLEY, C. W.: Disordered liver function in rheumatoid arthritis, 859
—— James Charles, obituary notice of, 905
BULLOUGH, W. A.: Obituary notice of T. P. Puddicombe, 586
BULMER, Ernest: B.L.A. medicine, 873 (O)
BUNNELL, Sterling: *Surgery of the Hand*, 885
Burgess, Capt. Denis John, death of, 552
BURN, J. H.: Morphine as prophylactic against ileus, 622, 817
Burns: Grafting for burns of the eye (annotation), 190—A plea for simplicity of treatment (C. W. Flemming), 314 (O)—Phosphorus, first-aid treatment (W. McCartan and E. Fecitt), 316 (O)—On knee, 713
BURROWS, Arthur (and B. RUSSELL): Sensitivity to lanette wax, 198
Bursa, unsightly, 754
Butter and cheese, safety of, 676
Button, swallowed, 141
BUXTON, R. J.: Observations on keratoconjunctivitis (cases seen in military hospitals), 847 (O)
—— St. J. D.: Accident prevention, 737
Buzzard, Sir Edward Farquhar, obituary notice of, 943

C

Cabot, Hugh, death of, 788
Caffeine: And peptic ulcer, 504, 627—Action of, in fatigue (annotation), 773
Calcium deficiency and phytic acid (annotation), 610; correspondence, 746, 832
Calculus formation, hydronephrosis and, 341
CALLENDER, Sheila (and others): Hypersensitivity to transfused blood, 83 (O); annotation, 360
CALLOW, A. Barbara: *Cooking and Nutritive Value*, 462
CALLUM, E. N.: Amputations, re-amputations, and penicillin, 599 (O)
CAMERON, A. J.: Penicillin and other drugs, 74
—— Charles: Tuberculosis in war and peace (inaugural lecture as professor of tuberculosis in University of Edinburgh), 619
—— G. R.: Toxic effects of D.D.T., 933
—— Helen, assistant of John A. Degen, jun., *q.v.*
—— I. G.: Marching on rubber, 404
—— J. D. (and J. R. EDGE): Agranulocytosis after sulphonamide sensitization: penicillin therapy: death from *Ps. pyocyanea*, 688 (O)
CAMPBELL, James: Women in labour, 331
Canada, English qualifications in, 484

CANCER:
Blood changes, 449
Breast tumours, aspiration test in diagnosis of, 231
Cancer Act, 373
Drug treatment, 271, 414
Early recognition, 945
Hormone therapy (Medical Society of London), 934
Kaposi's disease: Record of a case of special interest (S. Nesbitt and others), 265
Nasopharynx, malignant tumours of (leading article), 324
Primary, in accessory sinus, 308
Prostatic, operative treatment of (leading article), 609
Rectum, colostomy for, 141
Statistics, 589
Stomach: Simmonds's disease due to post-partum necrosis of anterior pituitary: carcinoma of stomach (R. T. Cooke), 493 (O)—Pernicious anaemia and carcinoma of stomach (annotation), 503; correspondence, 664, 741
Treatment of, sense and sensibility in (Ernest Finch, R.S.M.), 894
Yorkshire campaign: 19th annual report, 53

Cannon, Walter Bradford, obituary notice of, 586
CANTERBURY, Archbishop of: Address at opening of Westminster Hospital Medical School, 507
CAPENER, Norman: New principle in splint construction, 738
CAPON, Norman: The training of clinical teachers (R.S.M.), 662
CAPPELL, D. F.: Routine Rh testing, 400
Car without foot pedals, 450, 520, 872
Carbachol for migraine, 754
Carbarsone, 240
Carbon tetrachloride, safety against, 591
CAREW-SHAW, Edward: Fenestration for otosclerosis, 509
CARINGTON, Whately: *Telepathy. An Outline of its Facts, Theory, and Implications*, 2nd ed., 886
CARLING, Ernest Rock: The training of clinical teachers, 663
—— Esther: Safe milk for children, 107—Milk and adjectives, 404—Young nurses in tuberculosis wards, 628
CARNOT, Paul: *Les Régimes des Gastropathes*, 288
Carrell, G. N. P., obituary notice of, 337
CARTER, J. Bailey: *Fundamentals of Electrocardiographic Interpretation*, 2nd ed., 49
—— S. J.: Necessity for serum amylase determination in all chronic alcoholic patients before operating for acute abdominal symptoms, 255
Cartilage, congenital discoid internal (F. C. Dwyer and C. Taylor), 287
CASE, R. A. M.: Toxic effects of 2,2-*bis*(*p*-chlorphenyl) 1,1,1-trichlorethane (D.D.T.) in man, 842 (O)
Catgut. *See* Surgery
CATHCART, G. C.: Relief of tinnitus, 144
CAWSTON, F. Gordon: Destruction of adult schistosomes in man, 910
CAYLEY, F. E. de W.: Latent disease in Far East P.O.W.s, 822

Cell counts, a source of error in the determination of (Bernard Freedman), 605
Cerebral. *See* Brain
Certification: Death certificates, 234—"Under the influence," 234
CHABROL, Etienne: *Les Régimes des Hépatiques*, 288
CHALKE, H. D.: Field experience with D.D.T., 933
CHALMERS, C. H.: *Bacteria in Relation to Milk. A Practical Guide for the Commercial Bacteriologist*, 3rd ed., 85
CHAMBERS, J. W. (and others): *Practical Physiological Chemistry for Medical Students*, 3rd ed., 692
Channel Islands, drugs for, 69
Charcot, a portrait of, 228
CHARNLEY, John: Fractured femur, 738
CHEATLE, G. Lenthal: March fracture, 134, 404—The "stamping" of the Guards, 786
Chemotherapy of fungous diseases (annotation), 326
CHESTERMAN, Judson T.: *The Treatment of Acute Intestinal Obstruction*, 389—Aetiology of pancreatic apoplexy, 461—Morphine as a prophylactic against ileus, 740
—— —— (and W. J. SHEEHAN): Prophylaxis of paralytic ileus by administration of morphine, 528 (O); correspondence, 622, 740, 817, 938, 950
CHETWODE, Field-Marshal Sir Philip: Portable surgical hospitals for China, 26
Chicken-pox, herpes zoster and (James Taylor), 385 (O)
Chilblains: Nicotinic acid for, 633—Treatment by paravertebral sympathetic block (H. J. Simmons), 884

CHILDREN:
Australia: Lady Gowrie Child Centres (book review), 220
Colds: The child with frequent colds (D. H. Irwin and E. Frankel), 566 (O); correspondence, 667, 703, 742, 823
Delinquency: The young offender, 137
Diet: The diets of school-children in two industrial towns (E. R. Bransby and Gertrude Wagner), 682 (O)—"Difficult eaters," 712
Diseases: *A Handbook on Diseases of Children* (Bruce Williamson), 187
Ear disease in children (D. Ritchie Paterson), 761 (O)
Exceptional child (annotation), 293
Feeding in infancy and childhood (book review), 427
Foreign bodies in bronchi and oesophagus (B. M. L. Abercromby), 647 (O)
Fractured femur, 375
Gymnastics for young children, 555
Haematology of children (book review), 533
Handicapped, choice of work for, 541
"Highly strung" child, 909
Holiday camps for, 910
Homeless child (annotation), 394—Children without homes (annotation), 611
Illegitimate: Care of unmarried mother and child, 685
Infectious diseases of (Society of M.Os.H.), 131
Intelligence and attainments (book review), 322
Maladjusted, boarding school for, 634
Milk: Children and dried milk, 72—Safe milk, 74, 107
Nerve injuries in (H. S. Souttar), 349 (O); correspondence, 473, 545, 627
Neurology: Book review, 257
Nuffield Chair of Child Health, University of London (annotation), 855
Nurseries: Notes on a mixed short-term day nursery (J. F. Dow), 21 (O)—Day nurseries, 135, 198, 267, 335—The case for nurseries (annotation), 735; correction, 832—Wartime nurseries, 790
Prolapsus ani in a child of 3 years, 105; correspondence, 242
Psychological development of the child (book review), 355
Schick test and A.P.T., 375
Tuberculin testing in: a comparison of methods (Doyne Bell and Ursula Jerram), 215 (O)
Tuberculosis in childhood (Varrier-Jones Memorial Lecture), 777
Ulcers, gastric and duodenal, ten cases of (E. J. Donovan and T. V. Santulle), 181
Vomiting, post-operative, 217
Whooping-cough: Trial of whooping-cough vaccine in city and residential nursery groups: report to the M.R.C. (A. M. McFarlan and others), 205 (O); leading article, 222; correspondence, 334

CHILDS, A. N.: Dietitians, 858
China: Portable surgical hospitals, 26—British civilians released in, 578
Cholecystitis: Heart burn and, 412—Diet and treatment, 712
Choline chloride: A therapeutic trial of, in infective hepatitis (J. S. Richardson and W. S. Suffern), 156 (O)—Dosage and effects of, 573 (leading article); correspondence, 664
CHOLMELEY, John A.: Perspex in orthopaedics, 585
Christian Science "nurses," 673
CHRISTIE, Ronald V.: Penicillin in bacterial endocarditis, 132
Civilization, climate and, 404
CLARK, F. Le Gros: Nutrition in social medicine, 858
—— K. C.: *Positioning in Radiography*, 4th ed., 692
CLARKE, L. T. (and R. S. MACHARDY): Housing the returned consultant, 30
—— Ronald R. J. R.: Pasteurization of milk, 666
CLARKSON, Patrick (and J. SCHORSTEIN): Treatment of denuded external table of skull, 422 (O); correspondence, 544, 703
CLAYE, A. M.: A case of unilateral dysmenorrhoea, 438
CLEGG, J. L.: Psychiatry in the Services, 624
Clendening, Logan, death of, 409
CLERY, A. B.: Plastic surgery, 780
Clewer, Major-Gen. Donald, obituary notice of, 946
Clifton, Major Vivian Roy, death of, at sea while on active service, 552
Climate: Problems of naval warfare under climatic extremes: Croonian Lectures (Macdonald Critchley), I, 145 (O); II, 173 (O); III, 208 (O); correspondence, 334, 404, 896
CLUTTON-BROCK, J.: Valve disk for circle absorbers, 572
CLYMO, B. J.: Spinal analgesia in operative obstetrics, 939
CLYNE, D. G. Wilson: Domiciliary midwifery and the family doctor, 441
COCHRANE, A. L.: Tuberculosis among prisoners of war in Germany, 656 (O)
—— G. C. (and K. B. WOOD): Syphilitic reinfection after penicillin therapy, 333
—— J. B. (and others): An unusual case of erythroblastosis foetalis, 648 (O)
COCKETT, F. B.: Acute haemolytic anaemia due to sulphonamide administration, 884
COHEN, Raymond C.: Artificial pneumothorax refill, 862
COKE, Harry: Psychosomatic reactions, 667
COLDREY, Eric: Aspiration test in diagnosis of brest tumours, 299
Colds: The child with frequent colds (D. H. Irwin and E. Frankel), 566 (O); correspondence, 667, 703, 742, 823—The public and the common cold, 710
COLE, R. B. Wellesley: Medical future of the Colonies, 895
Colitis, ulcerative, penicillin in, 240
College, Epsom, Royal Medical Foundation of: Pension, Scholarships, and Grants, 95
—— Royal, of Obstetricians and Gynaecologists: Council elections, 31, 236—Council meeting, 236—Members elected, 236—Annual report, 516—Members admitted, 552—Diploma awarded, 672
—— —— of Physicians of Edinburgh: Fellows introduced and elected, 169, 789—Report of laboratory curator, 338—Quarterly meeting, 789—Hill Pattison-Struthers bursary awarded, 789—Elections, 906

COLLEGE, ROYAL, OF PHYSICIANS OF LONDON:
Abrahams Lecturer, 201
Baly Medal, 201
Bradshaw Lecturer, 201, 629
Charles West Lecturer, 201
Comitia, 201, 629
Croonian Lecturer, 201
—— Lectures, 1945: Problems of naval warfare under climatic extremes (Macdonald Critchley), I, 145 (O); II, 173 (O); III, 208 (O); correspondence, 334, 404, 896
Diplomas granted, 201, 629
Elections, 201, 629
Fitzpatrick Lecturer, 201, 827
Goulstonian Lecturer, 201
Harveian Orator, 201—Annual Harveian Commemoration, 577—Rheumatic fever and heart disease (Harveian oration), 578
Jenks Memorial Scholarship, 629
Letter to R.C.S. on premises, 827
Licences to practise granted, 201, 630, 709
Lumleian Lecturer, 201
Members elected, 201, 629
Moxon Medal, 201
Murchison Scholarship, 201
Oliver-Sharpey Lectures: B. C. H. Matthews: Effects of high altitude on man, 75 (O); Effects of mechanical stresses on man, 114 (O); leading article, 123; correspondence, 199—Lecturer for 1946, 201
Parkes Weber Prize, 201
Sir Hans Sloane statue, 201

College, Royal, of Surgeons of Edinburgh: Fellows admitted, 169, 588—Honorary Fellowships conferred, 169—Officers elected, 588

COLLEGE, ROYAL, OF SURGEONS OF ENGLAND:
Annual meeting of Fellows and Members, 789
Appointments, 139
Arnott Demonstrator, 139
Arris and Gale Lectures, 139
Awards open to undergraduates, graduates, and for special meritorious work, 269
Bequest (residuary), 306
Bradshaw Lecture: Survey of fracture treatment (C. Max Page), 835 (O)
Buckston Browne dinner, 748
Council: Elections, 69—Meeting, 139, 236, 588, 748
Diplomas granted, 139, 236, 588, 748
Elections, 139, 748
Erasmus Wilson Demonstrators, 139
Hospitals recognized for Final Fellowship, 748
Hunterian Professors, 139
Leverhulme Research Scholarship, 588
Lister Medal presented, 588

COLLEGE, ROYAL, OF SURGEONS OF ENGLAND (*cont.*):
Lister Memorial Lecture: Use of micro-organisms for therapeutic purposes (Sir Howard W. Florey), 635 (O); leading article, 652
Moynihan Lecture, 139
Postgraduate surgical teaching, 269
Primary Fellowship: Pass lists, 672
Restoration Fund: Donation from King Farouk of Egypt, 31—Gifts from Royal Egyptian Medical Association, 31—Gift from B.M.A., 754
Scientific report, 1945 (leading article), 888
Thomas Vicary Lecture, 757, 872
Wellcome Trust, gift from, for extension of Museum, 94

COLLINS, E. G.: A plea for the young specialist, 406
COLLIS, W. R. F.: Belsen camp, 303
Colloids, introduction to (book review), 498
Colonies: Welfare (book notes), 16—Research Committee: 2nd annual report, 297—Training nurses for (Rushcliffe Committee Report), 506—Medical future of (leading article), 693; correspondence, 781, 859, 895—Private practice and Colonial Medical Service, 828
Colostomy. *See* Surgery
COLT, G. H.: Treatment of denuded external skull table, 544—Surgical catgut, 863
Coma, treatment of, 167
COMERFORD, Charles (and Brian H. KIRMAN): Pellagra in a morphine addict, 44 (O); correspondence, 547, 705, 785, 823
COMFORT, Alex: "Sterile" water: an out-patient and surgery technique, 187
Committee, Advisory, on Artificial Limbs: Members, 33
—— Negotiating, of the medical profession: statement by Secretary, 834
—— on Scientific Man-power and Resources, 828
—— Teviot, on Dentistry, 32
Communicable Diseases, The Control of (U.S. Office of War Information), 534
Conduct, setting a course for (book review), 15
Connell, Arthur M., obituary notice of, 866
Consultants. *See* Medical profession
Contraception: Methods, 203
"Convention" diseases: Port health safeguards, 893
Convulsion therapy, chemically induced, 300
—— —— electrical: Cerebral fat embolism after (A. Meyer and Donald Teare), 42 (O); correspondence, 167—Apparatus for, 66, 99
COOK, Robert: Venereology, 634
—— R. P. (and others): Methods for determining plasma proteins. Value in a group of boys aged 14-15, 456 (O)
COOKE, R. Gordon: *A Summary of Medicine for Nurses*, 850
—— R. T.: Simmond's disease due to post-partum necrosis of anterior pituitary: Carcinoma of stomach, 493 (O)
—— W. Trevor (and others): Treatment of infective hepatitis, 298; leading article, 573
COOPER, T. V.: Adder-bites, 242
—— W. F.: Sterilizing needles, 36—Paronychia of toe, 342
CORBET, R. M.: Pregnancy in a uterus bicornis, 894
CORCORAN, Arthur Curtis (and Irvine H. PAGE): *Arterial Hypertension. Its Diagnosis and Treatment*, 187
Corkill, N. L., decorated by the King of Egypt, 70
CORLETTE, C. E.: Hereditary transmission of Dupuytren's contracture, 232
Corpas, Juan N., death of, 788
Corrections: Review of *Medicine for Nurses*, 16—Article by Prof. Sarkisov (37), 242—Folic acid (91) 272—Sleep-walking (241), 308—Cerebro-spinal meningitis (243), 308—Tuberculous persons in prisons (301), 376—Sex hormones to control uterine bleeding (341), 376—Profuse periods (374), 414—Emulsions (374), 414—Tryparsamide (374), 414—Psychiatry in Army (508), 556—Nutritional macrocytic anaemia (550), 586—Wide-bore endotracheal connexions (534), 592—Release of medical students (589), 631—Erythrocyte sedimentation (584), 676—Ludwig's angina (623), 676—Dietitians' training (617), 676—"Chin-chin," 714—E.S.R. (584), 754—Case for nurseries (735), 832—Tropical medicine in war and peace (775), 832—Renaissance influence on medicine (757), 872—Protein metabolism (815), 872—Emphysematous lung (665), 910—Bristol Hospitals Fund (814), 950

Correspondence:
Abdominal nerve block, 547
Accidents, rock-climbing, effects of rope in, 705
Acroparaesthesia, 701, 746, 820
Alien doctors, 66, 136, 478, 549—Permission to practise for enemy aliens, 514, 628
Amoeba: Saline, sulphaguanidine, and the, 133
Amoebiasis, 266—Treatment of unconfirmed, 27
Anaemia: Nutritional macrocytic, 550, 586, 702—Pernicious, and cancer, 664, 741—Macrocytic oedema during, 782
Anaesthesia in threatened obstruction of air passage, 512
Anaesthetic risks, 402, 511, 583, 623, 746, 897
Analgesia, spinal, 897—In operative obstetrics, 818, 898, 939
Anastomosis, end-to-end, in small intestine, 405
Anatomy, human, teaching of, 740
Anginal and asthmatic attacks, 99
Appendicectomy, incision for, 863
Aviation physiology, cinematograph films of, 199
Avitaminosis and arcus senilis, 824

Correspondence (*continued*):
Banting Memorial Diabetic Convalescent Home, 407
Belsen Camp, 65, 100, 303
Beveridge report, 65
Bitterness, 407, 477, 548
Blind intubation, 512, 623
Blood: Rh factor and mental deficiency, 194—Routine Rh testing, 400—Debility following blood donation, 740
Bread, flour in, 940
Breast abscess, incidence of, 744, 862
—— feeding, 97, 267—To time-table, 744, 862
—— tumours, aspiration test in diagnosis of, 231, 299
Caffeine and peptic ulcer, 627
Catgut, surgical, 668, 743, 784, 863, 937
Children: Day nurseries, 135, 198, 267, 335—Child with frequent colds, 667, 742, 823—Anaemia in, 703
Chin-chin, 547, 668
China, portable surgical hospitals for, 26
Choline, effects of, 664
Climate: And health, 334—And civilization, 404
Coincidence? (dextrocardia in twins), 548, 705
Colonies, medical future of, 781, 859, 895
Coma, treatment of, 167
Consultant, housing the returned, 30
Convulsions, clinically induced, 300
Crooke-Mellgren cells, 898
Death certificates, 234
Diarrhoea, epidemic, 266
—— nutritional, 705
—— and vomiting, epidemic, 627, 666, 746
Disability not disablement, 864
Doctors and the social trend, 235, 302, 334, 368, 405, 445, 476, 514
—— in uniform, 628
Drilling the glenoid, 197
Dupuytren's contracture, hereditary transmission of, 232
Effort syndrome in West African soldiers, 134, 266
Electro-convulsion therapy: Apparatus, 66, 99—Cerebral fat embolism after, 167
Embolism, air, 333, 403, 474
—— bronchial, in tuberculous reinfection, 665
Emphysema: Mediastinal, after tracheotomy, 475—Sequelae of emphysematous lung, 665, 817
Epidemics, identification of, 101
Ergometrine for migraine, 745, 784
E.S.R.: Estimation at sea, 546—Significance of, 584, 741, 823, 940—Anticoagulant *p*H in estimations, 782—Westergren technique, 940
Europe, food for, 865
Eyes: Removal of wrong eye, 300, 366
Famine oedema, 330
Far East, latent disease in, 822
Filigree operation, 98, 405
Food habits, 705
Fracture of femur with shortening; emergency treatment of, 232, 299
—— limbs, rehabilitation in, 332, 475, 582, 703
—— march, 64, 134, 232, 333, 404
Gall-stones, aetiology of, 700
Galvanic stimulation of denervated muscle, 622, 745, 898
Gas cylinders, identification of, 233
Gastric juice, acid-fast organisms in, 702
Gastroscopy, risks of, with flexible gastroscope, 510—Dangers of, 543
"Geomedicine," 896
Glandular fever: With neutropenia, 702, 743—And infectious mononucleosis, 896
Goodenough report, 199, 267
G.P., training of the, 135, 303
Haematology, terminological exactitude in, 865
Haemorrhoids, rectal, haematuria after injection of, 864
Harvard system, 864
Hepatitis from blood transfusion, 783
—— infective: Treatment of, 266, 298—Recurrence of, 861
Holland, medical books for, 740
Hospital service plan, 936
Hospitals: Small, efficiency and economy of, 330—County, staffing of, 902
Housing: And health, 508—Housing, health, and unwise spending, 585
Humanitarianism and the European situation, 446, 549
Hydatid disease of lung, 135, 197
"Hyperbaric" and "hypobaric," 368
Hypoglycaemic fatigue, 234
Ileitis, chronic regional, 332, 405
Infant mortality and social conditions, 477
—— suffocation, accidental, 332
Infection, transmission of, during withdrawal of blood, 62
Instrument fittings and apparatus, standardization of, 166
Jaundice, induced, therapeutic effect of, 782, 864
Jelly-fish stings, 300
Lambliasis, diiodo-hydroxyquinoline in, 512
Lesion, discharging, 784, 860
Liver: Disordered function in rheumatoid arthritis, 859—The lower border of, 941
Longevity, 545, 624
Ludwig's angina, 369, 440, 622
Lymphadenitis, non-specific mesenteric, 818, 861
Magnesium, toxicity of, 475
Malaria and salvarsan, 27
Malta, poliomyelitis in, 26, 61
Marching on rubber, 404
Mastitis, puerperal and lactational, 28

Correspondence (*continued*):
Medical appliances, control of, 65
—— demobilization, 663
—— education: Need for personnel, 439—Training for released Service doctors, 477, 585, 707, 824
—— films, catalogue of, 335
—— photography, 407, 548, 704, 785—An institute of, 478
—— P.O.W., experiences of, 513
—— practices, buying and selling of, 825, 859, 903
—— research, position of, 29, 97
Medicine: Integration of, 64—Aim of, 824
—— civil, urgent needs of, 473
—— tropical, 895
Mental disorder, physical therapy in, 901
Methodology in the curriculum, 334
Midwife, responsibility of, in placenta praevia, 898
Midwifery, domiciliary, and the family doctor, 365, 401, 441
Milk: Education in safe milk, 230—Still unsafe, 230, 301—Safe milk, 330, 476—Pasteurization, 367, 666, 901—And adjectives, 404—Tea-making and tuberculous milk, 514
Morphine: Diet in addiction, 547, 705, 823—As prophylactic against ileus, 622, 740, 817, 938—Pellagra in addict, 785
Myiasis, human creeping, 135
National Health Service: Proposed, 936—"Fundamental principle," 936
Nerve injuries in children, 473, 545, 627
Neurologist and neurosurgeon, 346, 473
Newspaper publicity, 137, 368, 444, 549
Nurses: The 'cloistered nurse, 29—Examinations for, 29—Education of, 66—Medical views on training, 513—Shortage of, 865
Nylon for buried sutures, 901
Occupational therapy department, 64
Osteo-arthritis, mono-articular, of hip, 28, 99
Otosclerosis, fenestration for, 509, 543, 626
Paronychia, severe, treatment of, 299
Patella, excision of, 62, 133, 165, 195, 543
Patient, telling the, 513, 581, 706
Penicillin: In endocarditis, bacterial, 132—Syphilis masked with, 133—Injecting, apparatus for, 199—For massively infected tissues, 299—Reinfection after penicillin in syphilis, 333—Control, need for, 367—Administration of, 400—Effect of rubber and synthetic rubber on, 400, 474, 508, 622, 741—Pastilles, 818
Pentothal, continuous, 511
Perspex in orthopaedics, 512, 585
Physiology, teaching of, 26, 100
Physiotherapists and other medical auxiliaries, 444
Phytic acid and calcium deficiency, 746
Pituitary stimulation by light, 860
Pneumoconiosis: Of coal-miners, 194—Of graphite workers, 195
Pneumothorax, artificial: Refill, 742, 821, 862, 899—Needle, 783
Polish medicine, losses of, 896
Politics and medicine, 824
Population: Keeping it up, 369
Potassium thiocyanate in hypertension, 746
Prisons, medical aspects of, 546, 785
Prostatic obstruction, 864
Psychiatry: In the Army, 508—In the Services, 582, 624, 668, 706
Psychosomatic factors in disease, 28
—— reactions, 667
Pyuria, abacterial, 167
Radiology and pyloric stenosis, 941
"Reasons" for scientific research, 549, 706
Rheumatic fever, acute, posture during, 367
R.M.B.F. Christmas gifts, 543
Saline infusion bottle, 822
Scalenus anticus syndrome, 902
Sciatic "neuritis," 440, 544, 582, 701, 784
Sciatica, subcutaneous oxygen for, 703, 822
Sclerosis, disseminated, remissions in, 405
Sensitivity to lanette wax, 198
Sensitization to synthetic resins, 198
Shackled mind, 439
Shock and open ether, 938
Singapore, medical supplies for, 479
Skin patients, rehabilitation of, 628
Skull table, denuded external, treatment of, 544 703
Smallpox: Edinburgh outbreak, 63
Special treatment centre, 235
Specialist, young, a plea for, 406
"Stamping" of the Guards, 707, 786, 865, 947
Sting-ray's stings, toxic properties of, 165, 267
Stovaine anaesthesia, 474, 545
Sulphathiazole, ? abuse of, 333, 403
Sulphonamide therapy by midwife, 939
Surgery in West Africa, 937
Surgical conditions in medical patients, 364
Sweating sickness and Picardy sweat, 63, 196
Syphilis: Third-generation, 585—Treatment of early, 900
Taking the waters, 369
Testis: Temperature and descent of, 704, 942—Descent of, 860
Tobacco smoking, effects of, on health, 98, 233, 900
Token of thanksgiving, 100
Trench fever as a cause of pyrexia in P.O.W.s, 27
Trichlorethylene, 440—In midwifery, 99, 331—In general practice, 403—Acute yellow atrophy after, 784, 897

Correspondence (*continued*):
Tuberculosis: Re-employment of the consumptive, 134—Pulmonary, and acute surgical emergencies, 299—Chronic pulmonary, 476—Young nurses in tuberculosis wards, 628—Research, 781, 901, 942
Tuberculous persons in prisons, 100, 301
Ulceration, chronic undermining, 864
Ulcers, duodenal: Ambulatory treatment, 298—Pituitary snuff and, 400—Treatment of, 473, 544—Infant feeding and, 585, 702
—— varicose, treatment of, 816, 899, 937
"Under the influence," 234, 333
U.S.S.R., medicine in, 669
Uterus, acute inversion of, 366, 475, 626, 700, 783, 820
Varicose veins: Operation for, 510, 627, 816—Haematuria after injection of, 668
V.D. prophylaxis, 28
Venepuncture, methods of, 27
Venereology, future of, 902
Vision, diminished, in P.O.W.s, 400
Vitamin D, mode of action of, 545
Volvulus of small intestine, 626, 704, 786, 863
War neuroses, 28
Weight reduction by dieting, 136, 231, 300
Weights and measures, 302
Welfare work, 786, 865
Whooping-cough, vaccination, 334
Women in labour, 196, 331, 443, 513
X rays: Discovery of, 747—Stethoscope *versus*, 941
Zoology, premedical, 334, 404

Cortical hormone. *See* Hormones
Cosmetics, review of book on, 572
COTTON-CORNWALL, V.: Significance of the E.S.R., 741
Cough, symptomatic treatment of, 909
Council, Bristol, for Rehabilitation: Officers appointed, 903
—— British: Medical department (annotation), 91
—— Joint Tuberculosis: Special meeting, 399
—— London, of Social Service: Report, 893

COUNCIL, MEDICAL RESEARCH:
Coal-mining: *Chronic Pulmonary Disease in South Wales Coalminers* (Special Report Series No. 250): leading article on, 574
Committee for Research in Medical Mycology. A survey of fungous diseases in Great Britain: results from the first eighteen months (J. T. Duncan), 715 (O)
Fellowships, travelling, 58
Haemoglobin levels in Great Britain, 1943 (with observations on serum protein levels), 89
Hepatitis, infective: A report on missed cases; evidence of liver damage without symptoms in a community at risk (M. R. Pollock), 598 (O)
Industrial Health Research Board: Appointments, 674
Jaundice, homologous serum, prevention of (J. F. Loutit and K. Mawnsell), 759 (O)
Members appointed, 394
Nutritive values of Wartime Foods (War Memorandum No. 14), 293
Rh factor: Results of routine investigation for Rh factor at the N.W. London depot (G. Plaut and others), 273 (O); correspondence, 400
Sulphonamides, medical use of (M.R.C. War Memorandum), 2nd ed.: leading article on, 465
Syringes: Sterilization, use and care of (War Memo. No. 15): leading article on, 221
Whooping-cough vaccine, trial of, in city and residential nursery groups (A. M. McFarlan and others), 205 (O); leading article, 222; correspondence, 334

Council National, for the Unmarried Mother and her Child: 25th Report, 570
—— Professional Classes Aid: Annual report, 216
—— Scottish, for Research in Education: *Aims and Activities*, 322
COUPER, E. C. Ross: Penicillin in parenteral infection in infancy, 876
Coventry: Health report, 777
Covisa, Juan Sanchez, death of, 200
COWELL, S. J.: Nutrition of expectant mothers, 59—Function of dietitians, 857
COX, Alfred: Tribute to Dr. R. Cunyngham Brown, 550
Cramer, William, obituary notice of, 304
Cramp, nocturnal, 106, 240, 342, 414
CRANCH, Doreen M. E.: Spinal analgesia in operative obstetrics, 939
Cranna, Robert, obituary notice of, 31
Craving, physiology and psychology of, 36, 107
CRAWFORD, G. J. (and others): Outbreak of epidemic diarrhoea and vomiting in a general hospital and surrounding district, 524 (O); correspondence, 627, 666, 746
CRAWHALL, T. L.: Nocturnal cramp, 342
CREER, W. Sayle: Hallux valgus, 108—Excision of patella, 165
CRISP, E. J.: Intervertebral disk lesions, 24
CRITCHLEY, Macdonald: Problems of naval warfare under climatic extremes: Croonian Lectures, I, 145 (O); II, 173 (O); III, 208 (O); correspondence, 334, 404, 896
CROFT, P. B.: Nitrogen loss after thermal burns, 96
CROFTON, W. M.: Stethoscope *versus X* rays, 857
Crone, John Smyth, obituary notice of, 788
—— P. B.: Longevity, 950
Crooke-Mellgren cells, 898
CROSKERY, Sidney E.: Disclaimer, 376

Crow, Douglas Arthur, obituary notice of, 747
CROWE, H. Warren: Hypertension, 662
CRUICKSHANK, R.: Prophylaxis of whooping-cough, 131
CRUTCHER, Hester B.: *Foster Home Care for Mental Patients*, 121
CSONKA, G. W.: Podophyllin for warts, 910
CULBERT, T. D.: Doctors and the social trend, 369—(and O. WILSON): Chronic regional ileitis, 332
Culex molestus, bite of, 675
CULLEN, C. H.: Actinomycotic infection of gunshot wounds, 738
CUNDEL, S. (and others): Mumps and mumps orchitis, 767
CURR, J. F.: Salivary-gland tumour of upper lip, 605, 872
CUTHBERTSON, D. P.: Protein loss after injury, 95—Protein metabolism, 815—(and others): *Practical Physiological Chemistry for Medical Students*, 3rd ed., 692
Cyprus, tick-borne relapsing fever in (R. C. Wood and K. C. Dixon), 526 (O)
CYRIAX, Edgar: Bell's palsy, 714
Cystometry, annotation on, 293
Czechoslovakia, clinical pathology in, 777

D

D'ABREU, A. J.: Unusual termination of intestinal obstruction due to a gall-stone, 388—Fishbone embedded in tonsil simulating neoplasm, 592—Elongated styloid process causing symptoms in throat, 643
DALE, H. W. Loftus: Spinal analgesia in operative obstetrics, 819
DALEY, Doreen: Acute inversion of uterus, 626
DALGLEISH, Philip H.: Two cases of air embolism, 256; correspondence, 333, 403, 474—Artificial pneumothorax refill, 821
DALRYMPLE-CHAMPNEYS, Sir Weldon: Surgical catgut, 937
DAMESHEK, William: *Leukopenia and Agranulocytosis*, 321
Danby, Alfred Beuthin, obituary notice of, 944
DANIELLI, J. F.: Vitamin C deficiency and wound healing, 96
Daniels, Capt. Kenneth, death of, in a prisoner-of-war camp, Borneo, 788; obituary notice of, 826
Darlow, Francis, obituary notice of, 102
DAVEY, J. B.: Medical future of Colonies, 781
—— T. H. (and others): Tropical medicine, 895
DAVIDSON, J. N.: Modern methods of studying protein metabolism, 815; correction, 872
—— Maurice: Stethoscope *versus* x rays, 856
—— Stanley: Report on the Harrogate waters (annotation on), 259
DAVIE, Thomas B. (and J. Henry DIBLE): *Pathology. An Introduction to Medicine and Surgery*, 2nd ed., 806
Davies, David, obituary notice of, 68
—— F. M. E.: Psychiatry in the Services, 583
—— G. L.: Teaching of physiology, 100
—— J. E.: Trench fever as cause of pyrexia in P.O.W.s, 27
—— Surg. Comdr. John, obituary notice of, 304, 370
—— T. S.: Projection microscope for use in daylight, 428
DAVIS, Eli: Bruising and rheumatism, 520
—— Hilda M.: *Child Welfare*, 121
—— O. T. (and W. M. JOHNSON): Observations on 22 cases of pancreatitis, 420
—— P. G. S.: Doctors and the social trend, 405
DAVISON, W. H.: Accidental infant suffocation, 251 (O); correspondence, 332
Dawson of Penn, Lord: Wish for post-mortem examination of his body expressed in his will, 339
DAX, E. Cunningham (and F. REITMAN): Chemically induced convulsion therapy, 300
D.D.T.: Action of, 35—For pediculosis, 106—Scabies and (F. F. Hellier), 255—Further results with (annotation), 260—Toxic effects of 2, 2-*bis* (p-chlorphenyl) 1, 1, 1-trichlorethane (D.D.T.) in man (R.A.M. Case), 842 (O)—Fatal case of D.D.T. poisoning in a child, with account of two accidental deaths in dogs (K. R. Hill and G. Robinson), 845 (O)—Discussion on, at R.S.M., 932
Deaf, help for (annotation), 126
Deaf-mutism: Congenital, in Scotland, 437—Causes of, 676
Death: Misleading evidence in establishing the time of (Alan D. Morgan), 255—A fatal shot, 376—"He died peacefully . . .", 712—Test for drowning, 831—Repeated neonatal deaths, 871
—— certificates: *See* Certification
DEBENHAM, R. K. (and others): B.L.A. surgery, 377 (O); correspondence, 476
DEBONO, J. E.: Poliomyelitis in Malta, 61
DE FOREST, G. K. (and L. M. KERR): Small epidemic of streptococcal diseases in nurses attending infected child, 409
DEGEN, John A., jun. (with the assistance in the field of Helen CAMERON, Virginia L. M. ROBINSON, and Mildred S. R. WIEDEN): Sequelae of cerebrospinal meningitis. A follow-up study of 986 cases from the American Red Cross—Harvard Field Hospital Unit, 243 (O); correction, 308
Delirium tremens, insulin for (annotation), 91
Debrez, L., death of, 788
de Mowbray, Ralph Marsh, obituary notice of, 587
Denervation: Influence of galvanic stimulation on muscle atrophy resulting from (E. C. S. Jackson and H. J. Seddon), 485 (O)—And re-innervation, changes in human voluntary muscle in (R. E. M. Bowden), 487 (O)
DENNY, E. R. (and others): 14 cases of Vincent's angina treated with penicillin, 382
Dermatitis: Industrial, 34—From wearing Army spectacles (W. O. G. Taylor and others), 40 (O); correspondence, 198—Of navel, 240, 342—Of palms, 483—Willow contact, 871
Dermatology and Syphilology, Year Book of, 219
Dermatophytes, animal-type: Role of, in human ringworm (Bernard A. Thomas and others), 346 (O)
DEROBERT, L.: *L'Eosinophilie Générale et Locale*, 606
DESHMUKH, M. D.: Device for filling blood sedimentation tubes, 308
Deverell, Capt. Henry Alexander, death of, in a prison camp in Malaya, 788
DEVITT, D. C.: Trichlorethylene in midwifery, 99
DEVLIN, Stanley: Volvulus of small intestine, 786

DIABETES:
Banting Memorial Diabetic Convalescent Home, 407
Cookery Book for Diabetics, 187
Food for diabetic persons, 631
Insulin: Globin insulin: a clinical trial (J. M. Malins), 318 (O)—Fat atrophy and insulin injections, 633, 950
Meningitis, diabetes after, 341
Pregnancy and, 340
Synthalin in, 871
Tuberculosis and, 909

Diagnosis: Differential (book review), 121—A case for, 950
DIAMOND, Louis K. (and Kenneth D. BLACKFAN): *Atlas of the Blood in Children*, 533
Diarrhoea: In India, 129—Due to *Giardia lamblia* (J. F. Fraser and Robert Taylor), 184 (O)—Epidemic (leading article), 189; correspondence, 266—Nutritional (leading article), 258; correspondence, 705
—— and vomiting, epidemic: Outbreak in a general hospital and surrounding district (George Brown and others), 524 (O); correspondence, 627, 666, 746
DIBLE, J. Henry (and Thomas B. DAVIE): *Pathology: An Introduction to Medicine and Surgery*, 2nd ed., 806
DICK, B. M. (and C. F. W. ILLINGWORTH): *Textbook of Surgical Pathology*, 5th ed., 356
—— I. Lawson: Cancellous bone transplants, 23
—— W. Pointon: Mass miniature radiography of factory groups in Middlesex, 568 (O)
Dictionaries: *Medical and Nursing Vocabulary in English and Greek*, 390—*Short Anglo-Polish Medical Dictionary*, 498
Diet: A tropical dietary (W. E. McCulloch), 127 (O)—Training and qualifications of dietitians (Memorandum from Nutrition Society), 617—Diets of school children in two industrial towns (E. R. Bransby and Gertrude Wagner), 682 (O)
Dieting, weight reduction by, 136, 231, 300
Dieudonné, Adolf, death of, 409
Digestion: Digestibility of different foodstuffs (book reviews), 288—Digestive disorders and swallowed sputum, 556
Diggle, Walter Saxon, obituary notice of, 825
Digitalis, standardization of (annotation), 359
DILLON, Frederick: Methodology in the curriculum, 334—Psychiatry in the Services, 706
DINGLE, Phillis: Incidence of breast abcess, 744

DIPHTHERIA:
Age incidence, 338
Allergic subject, diphtheria inoculation of, 141
Asthmatic child, immunization in, 171
Enemas in, 794
Immunization: And smallpox vaccination, 340—"Boosting" dose, 519—Publicity for, 709—Statistics, 710, 868—Dosage, 830
Incidence in certain European countries (G. Stuart), 613 (O)
Pregnancy, a case of laryngo-tracheal diphtheria in (J. M. Kennedy), 87
Prophylaxis, 675
Schick test and A.P.T., 375
Statistics, 32
Swabs, discharge, 753, 870
See also Epidemiology

Diplegia, cerebral, 411
Disability not disablement, 864
Disclaimers: Dr. Gertrude Jefferson, 108—Drs. E. C. and Margaret Thomas, 342—Dr. Sidney E. Croskery, 376—Dr. M. E. H. Halford, 520—Dr. G. Roche Lynch, 592
DISCOMBE, G. (and John L. D'SILVA): Acute idiopathic porphyria, 491 (O)
Dislocation, congenital recurrent, of head of radius (Ellis Bindman), 354
Diver, Capt. John, death at Changi P.O.W. Hospital, Singapore, 672
DIXON, K. C. (and R. C. WOOD): Tick-borne relapsing fever in Cyprus, 526 (O)
DMOCHOWSKI, Leon: *Food Conditions in Occupied Poland* (Analysis of the German Food-rationing System), 391—Losses of Polish medicine, 896
DOBBS, Richard H. (and others): *Midwifery Principles and Practice for Pupil Midwives, Teacher Midwives, and Obstetric Dressers*, 2nd ed., 533
Doctors. *See* Medical profession
DODD, Harold: Operation for varicose veins, 510—Surgical catgut, 937
DODDS, E. C.: Hormone therapy of cancer, 934
Dogs, surgical emergencies in, 832
Donald, Samuel John Watt, obituary notice of, 337
DONALDSON, J. K.: *Surgical Disorders of the Chest. Diagnosis and Treatment*, 427
DONE, Janet M.: Permission for aliens to practise, 628
DONOVAN, E. J. (and T. V. SANTULLE): Gastric and duodenal ulceration in infancy and childhood, 181
—— Hugh: Abacterial pyuria, 12 (O); correspondence, 167
DOOLEY, P. G.: The child with frequent colds, 823
DORLING, G. C.: Acute intestinal obstruction due to dried fruit, 426
DOUGLAS, A. C.: Anaesthetic risks, 583
—— Donald, M.: Irreparable vesico-vaginal fistula in Iraq: treatment by ureterocolostomy, 78 (O); leading article, 89
DOUTHWAITE, A. H.: Pituitary snuff and duodenal ulcer, 400
DOW, J. F.: Notes on a mixed short-term day nursery, 21 (O)
DOWLING, G. B. (and E. W. Prosser THOMAS): Lupus vulgaris treated with calciferol, 935
DREW, L. G. W. (and others): "Fastness" of staphylococci, haemolytic streptococci, and pneumococci to penicillin, 603 (O)
Drugs: Value of a drug, 142—World control of narcotic drugs (annotation), 261—"Schedule 4," 412—The antinarcotic campaign in Egypt (annotation), 612—Names of, 714—Purchase tax exemptions, 791
DRUMMOND, R: Cerebral fat embolism after E.C.T., 167
Dry rot, 831
DRYSDALE, Constance F. (and D. G. MCINTOSH): Meningitis due to a penicillin- and sulphonamide-sensitive Pittman b strain of *H. influenzae*: recovery, 796 (O)
D'SILVA, John L. (and G. DISCOMBE): Acute idiopathic porphyria, 491 (O)
—— (and E. C. T. ORTON): Case of achalasia of cardia, 461
DUCKWORTH, Geoffrey: Doctors and the social trend, 484—Chronic undermining ulceration, 864
DUFF, A: The Harvard System, 864
—— Donald, obituary notice of, 825
DUNCAN, J. T.: Survey of fungous diseases in Great Britain: results from the first 18 months, 715 (O)
—— (and others): Role of animal-type dermatophytes in human ringworm, 346 (O)
DUNCUM, Barbara M.: *The Development of Inhalation Anaesthesia* (advance notice), 356
DUNLOP, B: The future of populations, 413
Dunn, Capt. James Raymond, death of, 672
DUNNER, Lasar: Pneumoconiosis of graphite workers, 195
Dupuytren's contracture, hereditary transmission of, 232
DURAND, Richard W.: Psychiatry in the Services, 669
Durham, Herbert Edward, obituary notice of, 708
DWYER, F. C. (and C. TAYLOR): Congenital discoid internal cartilage, 287
Dysentery: Bacillary dysentery in the Orient, 129—Incidence of types of, 752

E

EAGER, Richard: *The Treatment of Mental Disorders (Ancient and Modern)*, 731
East of Suez (George R. McRobert), 128 (O)
Eczema, intractable, 36
EDGE, J. R. (and J. D. CAMERON): Agranulocytosis after sulphonamide sensitization: penicillin therapy: death from *Ps. pyocyanea* infection, 688 (O)
Edmunds, Arthur, obituary notice of, 866
—— H. Tudor: Pasteurization of milk, 367, 901
Edsall, David Linn, death of, 788
Education: *Guide to the Educational System of England and Wales* (annotation on), 394
EDWARDS, F. Ronald: A systemic penicillin apparatus, 86; correspondence, 199
—— J. G.: Hydatid disease of lung, 135
—— Peter W.: Artificial pneumothorax refill, 899
—— W.: Buying and selling practices, 825
Effort syndrome in West African soldiers, 134, 266
EGGLETON, M. Grace: "Under the influence," 333
Egypt: The antinarcotic campaign (annotation), 612
EIMERL, T. S.: Glandular fever with neutropenia, 743
Eire: Registrar-General's quarterly returns for, 70, 481, 947—Medical research in, 363—*Irish Medical Directory and Hospital Year Book*, 731
ELAM, John: Anaesthetic risks, 402
—— (and F. Jean VINTER): Food for Europe, 865
ELDER, P. McA.: Artificial pneumothorax refills, 900
Electrocardiogram: Fundamentals of interpretation (book notes), 49
Electrocardiography, review of book on, 426
Electro-convulsive therapy: 1944 report from Dow Mental Hospital, 567
Electro-encephalogram, thought and the, 908
Electromyography, leading article on, 925
ELGOOD, F. R. M.: Penicillin injection apparatus, 199
ELLIOT, Walter: Medicine and the State, with special reference to the E.M.S., 911 (O)

ELLIOTT, B. C.: Therapeutic efficiency of ultra-violet-light apparatus: a comparison of tests, 881 (O); annotation, 890
—— Frank A.: A case of local tetanus, 353 (O)
Ellis, Archie Samuel, commended for bravery, 411
—— M. E. (and others): An unusual case of erythroblastosis foetalis, 648 (O)
—— V. H.: 420 recent femoral-shaft fractures, 738
ELLMAN, Philip: Stethoscope *versus* *x*-rays, 857
ELPHINSTONE, M. D. W.: Effort syndrome in West African soldiers, 134
ELSDON-DEW, R.: Amoebiasis, 266
ELTON, Arthur (and Gordon GORDON-TAYLOR): Catalogue of medical films, 335
Embolectomy. *See* Surgery
Embolism, air: Two cases (Philip H. Dalgleish), 256; correspondence, 333, 403, 474—In pregnancy, 793
—— bronchial, in tuberculous reinfection, 665
—— cerebral fat, after electrical convulsion therapy (A. Meyer and Donald Teare), 42 (O); correspondence, 167
—— fat, a note on (H. J. Nightingale), 531 (O)
—— paradoxical, with report of a case due to a ventricular septum defect (C. Allan Birch), 727 (O)
—— thrombo- (leading article), 50
Embryology for medical students (book review), 691
EMBY, G. R.: Treatment of warts, 950
Emotion: The physiology of (annotation), 191—A new reaction to (annotation), 504; correspondence, 667
Emphysema: Mediastinal emphysema and bilateral pneumothorax after tracheotomy (J. R. M. Whigham), 47; correspondence, 475—Massive surgical emphysema, pneumothorax, and pneumoperitoneum (Ronald Jones), 530 (O); correspondence, 665
Emulsifying bases, 204
Emulsions, oil-in-water and water-in-oil, 374; correction, 414
Encyclopaedia, British, of Medical Practice, including Medicine, Surgery, Obstetrics, Gynaecology and other Special Subjects. Medical Progress, 85
Endocarditis, bacterial, penicillin in, 132; annotation, 734
Endocrinology: Book reviews, 157
Endometrioma in small intestine, 240
England and Wales: Diphtheria incidence in, 613—Registrar-General's quarterly returns, 306, 751
Eosinophil cell. *See* Blood

EPIDEMIOLOGICAL NOTES:
Diphtheria, 674
Food-poisoning, 104
Gloucestershire, health of, 448
India: The health of Bengal, 1941, 907
Infantile paralysis in Queensland, 869
Northern Ireland: Annual report, 751
Plague in Malta, 33
Quarantine for scarlet fever in New York, 481
Quarterly returns: Eire, 70, 481, 947—Northern Ireland, 170, 590—Scotland, 239, 869—England and Wales, 306, 751
Scotland: Health during 1944, 306
Typhus in Vienna, 140
Vital statistics: First 6 months of 1945, 104; Scottish, 239

EPIDEMIOLOGY:
Diphtheria. *See* Diphtheria
Epidemic diarrhoea and vomiting in a general hospital and surrounding district (George Brown and others), 524 (O); correspondence, 627, 666, 746
Epidemics: Identification of, 101—Help for householders in case of (Ministry of Health), 778
Europe, epidemic risks in (leading article), 809
Infectious diseases: And vital statistics, 33, 70, 104, 140, 170, 202, 239, 270, 306, 339, 372, 410, 448, 481, 517, 554, 590, 632, 674, 711, 751, 791, 829, 869, 907, 947—Mortality from, 631
Influenza: Will there be an epidemic? (leading article), 732
Liverpool: Statistics, 1945, 747

Epilepsy: And menstruation, 143—After meningitis, 341—Snake venom for, 412—Intelligence and (annotation), 773
Epistaxis, profuse, ligature of anterior ethmoidal artery for arrest of (Philip Reading), 848
Epsom College: 92nd annual general meeting of Governors, 55—Bequest, 69—Annuity, scholarships, and grants, 778
EPSTEIN, E. (and S. A. Hugh LESSER): A trick test to detect night-blindness "malingerers," 644 (O)
Ergometrine in migraine, 784
Ergotamine for migraine (annotation), 654; correspondence, 745, 784
Erythema nodosum, 213—And tuberculosis (William D. Gray), 286 (O)
Erythroblastosis foetalis: And hydrops in twins (Eileen Malone), 496—An unusual case of (E. F. Aubert and others), 648 (O)
Erythrocyte sedimentation rate. *See* Blood
ESMAT, A. H.: Strangulation of foetal intestine before term, 690
Ethyl alcohol: Bactericidal effect of mixtures of ethyl alcohol and water, with special reference to sterilization of the skin, and a note on the comparable effects of ether (G. T. L. Archer), 148 (O), leading article, 222
Europe: Humanitarianism and the European situation, 446, 549, 794, 865—A note on diphtheria incidence in certain European countries (G. Stuart), 613 (O)—Combined appeal for necessities, 707—Epidemic risks in (leading article), 809—Health problems: work of U.N.R.R.A., 892
Eustace, George Wallace, obituary notice of, 68
EVANS, C. D.: Training for released Service doctors, 585
—— H. Muir: Toxic properties of sting-ray's sting, 165
—— Lieut. John, death of, 200
EVE, F. C.: Resuscitation across a barrel: information wanted, 342
EVERETT, Houston S.: *Gynaecological and Obstetrical Urology*, 730
—— S. J.: Types of syringe needles, 204
Eye. *See* Ophthalmology
EYRE, J. (and others): The shortage of nurses, 242
EYRES, L. E.: Venereology, 754

F

Faculty of Ophthalmologists, 471
—— Radiologists: Pass lists, 946
—— Royal, of Physicians and Surgeons of Glasgow: Fellows admitted, 371—Elections, 709
FAIRBANK, H. A. T.: Excision of patella, 62—Congenital disclocation of hip, 737
FAIRCLOUGH, W. A.: Sixth-nerve paralysis after spinal analgesia, 801 (O)
FARMER, F. T. (and A. Spencer PATERSON): Electro-convulsive therapy apparatus, 99
—— John L.: Breast-feeding to time-table, 862
Farrell, Major John Andrews, life lost as result of an air crash in East Africa, 132
Fate of a threepenny bit, 143
Fatigue: Action of caffeine in (annotation), 773—And depression, 831
FAWCETT, A. W.: Large fibroma arising from pulmonary pleura of right lower lobe, 425
FEATHER, Norman: Keith Lecture on discovery and early history of *x* rays, 736
FECITT, E. (and W. MCCARTAN): First-aid treatment of phosphorus burns, 316 (O)
Federation, British, of Social Workers: 8th annual report (annotation), 261
—— Medical Women's: Assistance to ex-Service women, 238
FEHILY, Lydia: Nutritional deficiencies in Hong Kong before the Japanese invasion, 468 (O)
FELL, H. B.: Vitamin C deficiency and wound healing, 96
FENNELL, E. S.: Fat atrophy and insulin injections, 950
FERGUSSON, A. G. (and others): Dermatitis from wearing Army spectacles, 40 (O); correspondence, 198
FERNANDES, H. P.: Artificial pneumothorax refill, 821
Fertility: Relative infertility in female, 204

FEVER:
"East of Suez," 129
Glandular: With neutropenia (Gerald Slot and F. D. Hart), 495 (O); correspondence, 702, 743, 897—And infectious mononucleosis, 897
Rat-bite fever due to cat-bite: satisfactory response to penicillin after failure of arsenotherapy (G. I. M. Swyer), 386 (O)—A case of rat-bite fever (R. B. Thompson), 388
Relapsing, tick-borne, in Cyprus (R. C. Wood and K. C. Dixon), 526 (O)
Rheumatic: Posture during acute, 367—And heart disease (John Parkinson, Harveian Orator), 578—Notification of, 790
Scarlet: 36 cases of cardiac complications in 602 cases (G. Neubauer), 780
Trench, as a cause of pyrexia in P.O.W.s, 27
Typhoid, complicated by benign tertian malaria (A. S. Bookless and J. M. Naftalin), 804 (O)
Typhus: Four cases in Great Britain (H. L. Whitchurch Beach and John K. Rennie), 153 (O)—Typhus fever panel, 297—Neuritis after, 519
—— scrub: As a war disease (Sir John W. D. Megaw), 109 (O)—A clinical study (M. C. Menon and Colin Ibbotson), 112 (O)—Prophylactic vaccine, 293, 399
—— tick, a case of, in the Sudan (R. B. Usher Somers), 848
Undulant, in the Transvaal (annotation), 505

Fibroma, large, arising from pulmonary pleura of right lower lobe (A. W. Fawcett), 425
FIELDMAN, L.: Doctors and the social trend, 406
Filariasis, 129
FINCH, B. E. (and N. TRONCHIN-JAMES): Hysteria mimicking meningism, 532
Fingers: "Trigger" and "snap" fingers, 106, 241—Sore finger-tips in industry: protection by hydrogen peroxide (J. Vincent Bates), 154 (O)
FINIGAN, F. O'Donnell: Tribute to R. D. Gillespie, 826
FINK, David Harold: Release from nervous tension, 390
Fish, poisonous, 374
FISH, F. J.: Recommendations of the Goodenough report, 267
FISHBEIN, Morris (editor): *Medical Uses of Soap: A Symposium*, 923
FISHER, A. G. Timbrell: Excision of patella, 133
—— Mary (and others): Trial of whooping-cough vaccine in city and residential nursery groups: a report to the M.R.C., 205 (O); leading article, 222; correspondence, 334
—— Reginald: Doubtful penetrating abdominal wound, 74
Fistula, irreparable vesico-vaginal, in Iraq: treatment by ureterocolostomy (Donald M. Douglas), 78 (O); leading article, 89
Fitch, Charles Dennis, obituary notice of, 238
FITZGIBBON, Gibbon: Acute inversion of uterus, 700
"Flavazole" (Boots), 428
Fleas in the laundry, 792
FLEISCHHACKER, H. H. (and others): Epidemic diarrhoea and vomiting, 627
Fleming, Sir Alexander, decorated with Insignia of Legion of Honour (Commander), 373
—— E. Gordon: Sciatic "neuritis," 441
FLEMMING, C. W: Treatment of burns—a plea for simplicity, 314 (O)
FLETCHER, C. M. (and F. Avery JONES): Risks of gastroscopy with the flexible gastroscope, 421 (O); correspondence, 510, 543
FLOREY, Sir Howard W.: Use of micro-organisms for therapeutic purposes (Lister Memorial Lecture, R.C.S.), 635 (O); leading article, 652; correspondence, 832
FLOWER, Norman: Fate of a threepenny bit, 143
Fluorine in toothpaste, 144
Folic acid. *See* Vitamins
Food: Food consumption of working-class and lower-middle-class families in Brussels during January, 1945 (P. A. Bastenie and others), 351 (O)—Food conditions in Poland (leading article on book by Leon Dmochowski), 391—Uncommon sense about common foods (book review), 462—Study of food habits (leading article), 537; correspondence, 705—Canned foods (annotation), 538—Putrefaction of meat, poultry, and game, 555, 831—Canned food (notes on book on), 886
Foot-and-mouth disease from butcher's meat, 750
FOOTE, R. R.: Operation for varicose veins, 627—Treatment of varicose ulcers, 899
Forbes, Surg. Lieut. Ian Gordon, death of, 447
FORD, A. P.: Milk still unsafe, 301
—— Frank R.: *Diseases of the Nervous System in Infancy, Childhood and Adolescence*, 2nd ed., 257
Foreign bodies in bronchi and oesophagus in children (B. M. L. Abercromby), 647 (O)
Foresti, Carlos Brito, death of, 304
FORSTER, A.: Longevity, 545
Fox-Fordyce disease, 171, 242

FRACTURES:
Apparatus to elevate a fracture case for application of plaster (J. Noel-Jackson), 16; correspondence, 232
Femur: Emergency treatment of fractured femur with shortening, 232, 299—In a child, 375—Simple extra-articular fractures, 738
Limbs, rehabilitation of, 332, 475, 581, 703
Malleolus, internal (G. M. Muller), 320 (O)
March, 64, 134, 232, 333, 404, 706, 786, 865, 942
Spine: Management of recent fracture-dislocations of cervical spine (A. N. Guthkelch), 880 (O)
Stress: Two unusual stress fractures (Ian D. Kitchin and David A. Richmond), 214 (O)
Survey of fracture treatment: Bradshaw Lecture, R.C.S., 1945 (C. Max Page), 835 (O)

FRAENKEL, E. M.: Allergy to moulds in England, 14
France: *La Presse Médicale*, 193—*Centenaire de l'Académie de Médecine*, 228—Diphtheria incidence, 613—British surgeons' visit to Paris, 619—Pasteur Institute during occupation, 676
FRANCIS-MOSS, E.: Permanent holiday camps for children, 910
FRANKEL, E. (and D. H. IRWIN): An unusual case of ruptured aortic aneurysm, 426—The child with frequent colds, 566 (O); correspondence, 667, 703, 742, 823
—— P.: The integration of medicine, 64
FRASER, J. F. (and Robert TAYLOR): Diarrhoea due to *Giardia lamblia*, 184 (O)
FREEDMAN, Bernard: A source of error in the determination of cell-counts, 605
—— B. J.: A cheap home-made spectroscope, 356
FREEMAN, Harry: Risks of gastroscopy with the flexible gastroscope, 510
FRENCH, Herbert (editor): *An Index of Differential Diagnosis of Main Symptoms*, 121
Frick, Karl, death of, 447
FRIEDENWALD, Harry: *The Jews and Medicine: Essays*, 930
FRIEDMANN, I.: Mediastinal emphysema after tracheotomy, 475
Friends Ambulance Unit: Report, 507
Frigidity in a woman, 172
Froehlich, Professor, death of, 788
Fröhlich's syndrome, 591
FULTON, A. A.: Puerperal and lactational mastitis, 28—Value of supplements of vitamin C in preventing lactational mastitis, 488 (O); correspondence, 744
—— Annie A.: Incidence of breast abscess, 862
Fund, King Edward's Hospital, for London: Meeting of General Council, 932
—— Medical War Relief: Appeal, 772, 776
—— Royal Medical Benevolent: Annual general meeting, 58—Bequest, 69—A token of thanksgiving, 100—Christmas gifts appeal, 543—Position at the end of war (annotation), 735

Fungous diseases: Chemotherapy of (annotation), 326—A survey of, in Great Britain: results from the first eighteen months (J. T. Duncan), 715 (O)
Furunculosis, 830

G

GABRIEL, W. B.: Management of the permanent colostomy, 229—Stovaine anaesthesia, 545
GAINSBOROUGH, Hugh: Doctors and the social trend, 334
GAISFORD, Wilfrid F.: Non-specific mesenteric lymphadenitis, 861
Galen: A new text (book review), 288
GALLEY, A. H. (and J. H. PEEL): Apparatus for caudal analgesia, 36
GALLOP, E.: Dermatitis of navel, 342
Galloway, Sir David James, obituary notice of, 825
Gall-stones: Unusual termination of intestinal obstruction due to a gall-stone (A. J. d'Abreu), 388—Aetiology of gall-stones: Presidential Address to the Medical Society of London (Sir James Walton), 593 (O); correspondence, 700
GALPIN, P. A.: Digestive disorders and swallowed sputum, 556
Galvanism: Influence of galvanic stimulation on muscle atrophy resulting from denervation (E. C. S. Jackson and H. J. Seddon), 485 (O); correspondence, 622
GANG, Marcell: Alien doctors, 136
Ganglionectomy, lumbar (annotation), 92
Gangrene, gas, acidaemia in, 449
—— of Meckel's diverticulum, a case of (D. A. Grattan), 85
GARBER, N.: Treatment of post-traumatic headache, 272
GARDNER, Eric: A fatal shot, 376
—— Frances (and others): Therapeutic effect of induced jaundice in rheumatoid arthritis, 677 (O); correspondence, 782, 859, 864
GARMANY, Gerald: Psychiatry in the Services, 625
GARNHAM, P. C. C.: Malaria epidemics at exceptionally high altitudes in Kenya, 45 (O)
GARROD, L. P.: Penicillin therapy in bone and soft-tissue lesions in the limbs, 23
GASKELL, H. S.: Doctors and the social trend, 445—The E.S.R.: "Fourteen points," 940
Gastric juice, resting, acid-fast organisms in (John Yates), 530 (O); correspondence, 702
Gastroscopy, risks of, with the flexible gastroscope (C. M. Fletcher and F. Avery Jones), 421 (O); correspondence, 510, 543
GAVRONSKY, J. O.: Penicillin grown from a nutrient medium prepared from potato extract, 82 (O)
GECKELER, Edwin O.: *Plaster of Paris Technic*, 355
GEE, Arthur C.: *So You Have a Toddler*, 427
GELL, P. G. H.: Penicillin and synthetic rubber, 622
GEMMILL, G.: Study of food habits, 705
General paresis: Pyretotherapy for, 308—Typarsamide for, 374
—— practitioner. *See* Medical profession
"Geomedicine," 896
Geriatrics: Care of the aged (annotation), 162—*Bucks Old People's Welfare* (book notes), 572—Club for research on ageing, 659
Germany: Diphtheria incidence, 613—Food of displaced persons, 631
Giardia lamblia: Diarrhoea due to (J. F. Fraser and Robert Taylor), 184 (O)—Giardiasis associated with recurrent rectal haemorrhages (George R. Hemming), 185
GIBSON, H. E.: Herpes and varicella, 74
GILBERT, Barton (and others): *Midwifery: Principles and Practice for Pupil Midwives, Teacher Midwives, and Obstetric Dressers*, 2nd ed., 533
Gilkes, Humphrey Arthur, obituary notice of, 479
GILLESPIE, H. W.: Doctors and the social trend, 406
—— Robert Dick, obituary notices of, 670, 708, 787, 826
—— R. P.: Surface-marking lower border of liver, 942
GILLIES, Sir Harold: Tribute to E. E. Young, 707
GILLIS, Leon: Report on nearthrosis of shaft of humerus for amputations round elbow-joint, 686 (O)
Given, Flight Lieut. Hugh Macivor, killed in action, 826
GLAISTER, John: *Medical Jurisprudence and Toxicology*, 8th ed., 730
Glandular fever. *See* Fever
GLEADOW, E. F.: Identification of gas cylinders, 233
GLEDHILL, E.: Acute inversion of uterus, 819
Glenoid. *See* Shoulder
GLOVER, Edward: *The Psycho-Pathology of Prostitution*, 768
Glycosuria: Renal, 35—And pruritus, 556
GLYNN, L. E. (and others): Nutritional macrocytic anaemia, 550; correction, 586
GODBERT, A. L. (and R. BELCHER): *Semi-Micro Quantitative Organic Analysis*, 428
GODDARD, Deryck L. H.: Effort syndrome in West African soldiers, 266
GOHAR, M. A.: Transmission of infection during withdrawal of blood, 62
Gold, colloidal (Lange) reaction, 754
GONIN, M. W.: Belsen Camp, 65
Good, Thomas Saxty, obituary notice of, 747
GOODALL, James Robert: *A Study of Endometriosis, Endosalpingiosis, Endocervicosis, and Peritoneo-ovarian Sclerosis*, 2nd ed., 356
Goodenough report. *See* Medical education
GOODING, Simonds: Nocturnal cramp, 414
GORDON, M. (and K. ZINNEMANN): The *in vitro* sensitivity of *H. influenzae* to penicillin, with special reference to meningeal strains of Pittman's type b, 795 (O)
—— R. M. (and others): Tropical medicine, 895
—— Robert, obituary notice of, 905
—— Thomas L.: Bassini's operation for inguinal hernia, 181
GORDON-TAYLOR, Gordon (and Arthur ELTON): Catalogue of medical films, 335
GORDON-WATSON, Sir Charles: Management of the permanent colostomy, 229
Gosset, Antonin, death of, 447
GOTTLIEB, B.: High-colour-index anaemia due to vitamin C deficiency, 119 (O)
—— Philip M. (and Erich URBACH): *Allergy*, 321
Government programme, 268
GOWLAND, Marshall M.: Local penicillin in purulent pericarditis, 922
GRAF, K. A.: Infant feeding and duodenal ulcer, 702
GRAHAM, A. J. P.: Simple apparatus for penicillin administration, 768
—— James D. P.: Recurrence of infective hepatitis, 862
GRAHAM-LITTLE, Sir Ernest: Recommendations of the Goodenough Committee, 199—Doctors and the social trend, 476—Tribute to Dr. T. Wilson Parry, 515—The proposed National Health Service, 936
GRAINGER, A. (and others): Thiouracil in treatment of thyrotoxicosis, 343 (O)
GRATTAN, D. A.: Case of gangrene of Meckel's diverticulum, 85
Graves's disease, thiouracil for, 792
GRAY, F.: Day nurseries, 135, 267—The child with frequent colds, 742
—— William D.: Erythema nodosum and tuberculosis, 286
Greece: Rehabilitation of the blind, 239
GREEN, A. P.: Reviving the newborn, 144
GREEN-ARMYTAGE, V. B.: Acute inversion of uterus, 366
Greene, Major Alfred Charles, death of, in India, 335
GREENHILL, J. P. (editor): *The 1944 Year Book of Obstetrics and Gynecology*, 257
GREENWOOD, Major: Identification of epidemics, 101—Longevity, 624
GREGORY, R. A.: Teaching of physiology, 26
GREGSON, D. A. (and others): Thiouracil in treatment of thyrotoxicosis, 343 (O)
GREIG, Anne C. V.: Anaemia in the child with frequent colds, 703
Grenfell Mission, in aid of, 634
GRENVILLE-MATHERS, R.: Stethoscope *versus* x rays, 941
GRIFFIN, Dr. (Archbishop of Westminster): Day nurseries, 60
GRIFFITH, H. D.: Study of protein metabolism, 815
GRIMALDI, G. J. (and others): Mumps and mumps orchitis, 767
GRIMSON, T. A.: Administration of penicillin by intramuscular drip, 849
GUEST, A. I. (and Ian G. W. HILL): Prevention of seasickness in assault craft; report of experiments under tropical conditions, 6 (O)
Guild of St. Luke, SS. Cosmas and Damian: Activities to be resumed, 238
Gums, vitamin C and (leading article), 18
GURD, Fraser B. (and F. Douglas ACKMAN): *Technique in Trauma. Planned Timing in the Treatment of Wounds, including Burns*, 849
GUTHKELCH, A. N.: Management of recent fracture-dislocations of cervical spine, 880
GUTHRIE, Douglas: *A History of Medicine*, 606

GYNAECOLOGY:
Book reviews, 257, 356, 533
Climacteric, 307
Dysmenorrhoea: Unilateral, a case of (A. M. Claye), 438—In middle age, 450
Endometrioma in small intestine, 240
Menopausal flushes, 35
Menstruation: Epilepsy and, 143—Profuse periods in young girl, 374; correction, 414—Instruction about, 483
Ovary, very large granulosa-cell tumour of (H. A. Kelsey), 922
Uterus: Sex hormones to control uterine bleeding, 341; correction, 376—Action of magnesium on (annotation), 393; correspondence, 475
Vaginal secretion, diminished, after pregnancy, 412
Vesico-vaginal fistula, irreparable, in Iraq: treatment by ureterocolostomy (Donald M. Douglas), 78 (O); leading article, 89
Virginity, signs of, 908

H

HADDON, J. W. L.: Case of left-sided appendicitis, 569 (O)
Haematemesis, blindness following (James Black), 920 (O)
Haematology, terminological exactitude in, 865
Haematoma after hydrocele operation, 71
Haemoglobin levels. *See* Anaemia
Haemoglobinuria, nocturnal, case of (John A. Milne), 84 (O)
Haemolytic disease and congenital syphilis in siblings: role of Rh factor (Marjory N. McFarlane), 494 (O)
Haemorrhages, recurrent rectal giardiasis associated with (George R. Hemming), 185
Haemorrhoids, rectal: Haematuria after injection of, 864
HALFORD, M. E. H.: Disclaimer, 520
Hall, George, obituary notice of, 587
—— I. Simson: *Diseases of the Nose, Throat, and Ear. A Handbook for Students and Practitioners*, 3rd ed., 886
HALL-SMITH, Patrick: Psychiatry in the Services, 625
Hallux valgus, 108
HAMBLY, E.: Nerve injuries in children, 474, 627
Hamer, Capt. John Michael, death of, in Bermuda, 335
HAMILTON, A. J. C. (and H. J. R. KIRKPATRICK): Actinomycosis successfully treated with penicillin: report of 2 cases, 728 (O)
—— M.: "Reasons" for scientific research, 549
HANCOCK, Thompson: Potassium thiocyanate for hypertension, 662
Hands: Infection of skin of, 450—On "acroparaesthesia" and so-called "neuritis" of hands and arms in women: their probable relation to brachial plexus pressure by normal first ribs (F. M. R. Walshe), 596 (O); correspondence, 706, 746, 820
HANNAN, John Herbert: Position of medical research, 29
HANSON, J. C. H. (and T. C. BEARD): Saline infusion bottle, 822
—— J. F. H. (and R. B. LOGUE): Case of complete heart-block in pre-eruptive stage of rubella, 672
HARKNESS, John (and others): Significance of E.S.R., 741
Harper, Frances Margaret, obituary notice of, 944
HARRIES, E. H. R.: Immunization of young children, 131
HARRIS, A: Psychiatry in the Services, 582
—— H.: Telling the patient, 581
—— I.: Phytic acid and calcium deficiency, 746
—— Capt. St. George Eyre, obituary notice of, 66
—— Wilfred: An occupational therapy department, 64
HARRISON, Norman K.: Press publicity, 549
HARROWER, Kate: Doctors and the social trend, 302
HARRY, Ralph G.: *Modern Cosmeticology*, 2nd ed., 572
HART, F. D'Arcy (and E. J. KING): Pneumoconiosis of coal-miners, 194
—— F. D. (and Gerald SLOT): Glandular fever with neutropenia, 495 (O); correspondence, 702, 743, 896
HARTLEY, Sir Percival: International biological standards (Walter Ernest Dixon Memorial Lecture, R.S.M.), 579
HARTMAN, Gerhard (and Arthur C. BACHMEYER): *The Hospital in Modern Society*, 691
Harvard system, 864
HARVEY, Clare: Morphological abnormalities in human spermatozoa, 230
—— H. W.: *Recent Advances in the Chemistry and Biology of Sea Water*, 924
HAWKINS, C. F.: "The humane A.P. refill," 742
Haworth, James, obituary notice of, 446
HAWTHORNE, C. O.: Education in safe milk, 230
HAY, James R. W.: Domiciliary midwifery and the family doctor, 401
HAYDON, L. J.: Doctors in uniform, 628
Hay-fever. *See* Allergy
HAZELL, Kenneth: Haematuria after injection of rectal haemorrhoids, 864
Head, injury cases, after-care of (annotation), 810
Headache, post-traumatic, 272
Health centres: The special treatment centre, 235—Experimental, 553
—— Charter Movement, Inter-Allied: *Year Book*, 1945, 850
—— education: Problems and methods (Walter P. Kennedy), 621
—— Minister of: Achievements of maternity and child welfare during the war, 59—New Minister, 191—Statement on compensation in respect of medical practices, 834; leading article, 851
—— public: Its debt to experimental medical research (Sir William Savage, Stephen Paget Memorial Lecturer, 1945), 615
—— service, an integrated (annotation on R.A.V.C. work in Mediterranean theatres), 360

HEART:
Apex beat, 271
Cardiac arrhythmia: Quinidine supplies, 373
—— complications, 36 cases of, in 602 cases of scarlet fever (G. Neubauer), 780
—— failure, mersalyl and, 308
Congenital septal defects complicated by cerebral abscess: records of 3 cases (S. L. Robbins), 267
Ductus arteriosus, patent, ligation of (annotation), 612
Extrasystoles, 483
Fibrillation, paroxysmal auricular, 412, 871
Heart-block, complete, in pre-eruptive stage of rubella (R. B. Logue and J. F. H. Hanson), 672
In influenza (annotation), 359
Mitral stenosis and auricular fibrillation (S. Ben-Asher), 918
Posture in heart disease, 948
Premature systoles, 34
Rheumatic fever and heart disease (Harveian Oration by John Parkinson), 578
Syncope, some causes of (annotation), 772

Heartburn and cholecystitis, 412
Heekes, John William, obituary notice of, 867
HELLIER, F. F.: Training for released Service doctors, 477
HELLIWELL, C. J. V.: Case of third-generation syphilis, 186; correspondence, 585
Helminthic infections, 129
Hemicolectomy, 4 cases of (Hugh MacCarthy), 570
HEMMING, George R.: Giardiasis associated with recurrent rectal haemorrhages, 185
—— M.: Artificial respiration, 520
HEMPHILL, R. E.: Newspaper publicity, 137
Hempson, Geoffrey, obituary notice of, 30
HENDERSON, D. K.: Tribute to R. D. Gillespie, 670
—— H. J.: Jelly-fish stings, 300
—— Norman P.: Bureaucracy and the control of medical appliances, 65—Doctors and the social trend, 302, 514
Hendry, George A. Maxwell, obituary notice of, 905
—— James, obituary notice of, 408
HENNELL, P. G.: Clinical photography, 739
HENRY, Arnold K.: *Extensile Exposure Applied to Limb Surgery*, 806
—— Joyce: Epidemic diarrhoea and vomiting, 666
Hepatitis, infective: Therapeutic trial of choline chloride (J. S. Richardson and W. S. Suffern), 156 (O); leading article, 573—Mortality rates, 203—Treatment of, 266, 298—Missed cases of infective hepatitis: evidence of liver damage without symptoms among a community at risk: report to the M.R.C. (M. R. Pollock), 598 (O)—Neurological complications of (J. F. Stokes and others), 642 (O)—Recurrence, 861—Liver function in, gauged by hippuric acid synthesis tests (M. R. Pollock), 878 (O)
Hepato-renal syndrome, 830
Heredity: Intermarriage of black and white, 591—In cleft palate, hare-lip, and spina bifida, 634
HERDMAN, K. N.: Acute yellow necrosis of liver following trilene anaesthesia, 689 (O); correspondence, 784, 820
Hernia, inguinal: A criticism of the Bassini operation and its modifications (George B. Mair), 178 (O)—Bassini's operation for inguinal hernia (Thomas L. Gordon), 181 (O)—Sclerosing solution for, 204
Herpes zoster: And varicella, 74, 714—Pituitary extract for, 171—And chicken-pox (James Taylor), 385 (O)
HERSCHELL, Woolf (and John T. SCALES): Perspex in orthopaedics, 423 (O); correspondence, 512, 585
HEWER, C. Langton: Trichlorethylene, 440
Hiccup in infancy, 240
HICK, W. E.: Psychiatry in the Services, 583
HICKIN, N. E.: Spraying enclosed spaces, 172
HIGGS, S. L.: 71 cases of bone grafting, 23
Higson, Richard Woodward, obituary notice of, 787
HILL, E. Falkner: Anaesthetic risks, 511, 746
—— Ian G. W. (and A. I. GUEST): Prevention of sea-sickness in assault craft, report of experiments under tropical conditions, 6 (O)
—— K. R. (and G. ROBINSON): Fatal case of D.D.T. poisoning in a child with account of 2 accidental deaths in dogs, 845 (O)
HILLEBOE, Herman E. (and Russell H. MORGAN): *Mass Radiography of the Chest*, 86
HILLIER, Lieut.-Col.: Dermatitis from clothing impregnated with D.D.T., 934
HILTON, S. M.: National research into tuberculosis, 901
HIMSWORTH, H. P. (and others): Nutritional macrocytic anaemia, 550; correction, 586
HIN, A. K. Ng Chhung: Sporadic case of trichiniasis, 219
HINDMARSH, T. A. (and others): The Mikulicz resection operation for gangrenous intussusception in infants, 382 (O)
HINGSON, Robert A.: Women in labour, 196
Hip, mono-articular osteo-arthritis of, 28
Hirsutism: Treatment of, 34—Bleaching for, 106
Histoplasmosis (annotation), 125
HOCH, Hans (and John MARRACK): Estimation of serum proteins, 151 (O)—Estimation of serum proteins by the Linderström-Lang gradient, 876 (O)
HOGARTH, J. C.: Telling the patient, 513
—— R. G.: Rehabilitation of skin patients, 628
HOGBEN, Hamilton: Prevention of epidemic enteritis in nurseries, 131
HOGG, P. (and C. D. BRADLEY): Case of pneumococcal meningitis in newborn infant treated with sulphadiazine: recovery, 194
HÖHN, E. O.: Pituitary stimulation by light, 860
HOLDER, Eldred J.: Surgical catgut, 743
Holland, medical books for, 740
HOLLAND, Eardley: Tribute to James Hendry, 408
HOLLMAN, A: Anatomical nomenclature, 414
HOLLOWAY, H. P.: Hygiene in sanatoria, 272
HOLMAN, J. C.: Nutritional diarrhoea, 705
HOLMES, E. G.: Observations on oedema occurring during course of macrocytic anaemia, 561 (O); correspondence, 782
—— —— (and others): Neurological complications of infective hepatitis, 642 (O)
—— J. MacD. (and B. R. SWORN): Sciatic "neuritis," 350 (O); correspondence, 440, 544, 582, 701, 703
Home: Going home (annotation), 20
Hong Kong, nutritional deficiencies in, before the Japanese invasion (Lydia Fehily), 468 (O)
Honours: Resignation, 238
HOPE, Richard: Milk still unsafe, 231
HOPKINS, Philip: Peripheral arterial embolectomy, 117 (O)
HOPWOOD, F. L.: Röntgen's influence on medical physics (R.S.M.), 699
HORDER, Lord: Welfare work a branch of medicine, 865
HORGAN, J. B.: Blind intubation, 623
—— M. J.: Nerve injuries in children, 474
Hormone, anterior-pituitary-like, content of urine in pregnant women, relation between gastric acidity and (Stanley Way), 182 (O)
—— cortical: Output of (annotation), 854
Hormones, sex, to control uterine bleeding, 341; correction, 376
HOSFORD, John: Surgical catgut, 668

HOSPITALS:
Bristol: And district, 471—Provident Fund, 814; correction, 950
Canadian, on Cliveden Estate: Conversion to civilian use, 139; correction, 170
Catering, courses in (Nuffield Trust), 297
Children's, visiting in, 242
County, staffing of, 902
Diet: Second memorandum of King Edward's Hospital Fund, 328
Down Mental Hospital, Downpatrick: Report for 1944 on electro-convulsive therapy, 567
Emoluments, undervalued, 872
Glasgow Royal Infirmary: Grant from Nuffield Trust, 319
Government and, 709
Hospital at work (book review), 691
—— Service Plan (Hospital Services Ltd.), 936
Infection of wounds, further reduction in hospital (Valentine Logue and Wylie McKissock), 415 (O)
King's College Hospital, London: Research scholarships in diabetes, 69
Leeds General Infirmary: Medical Faculty recommendations for war memorial, 807
London Hospital: New kitchens, 238—Annexe at Brentwood, 411—Beds in Whitechapel, 411
—— problems, 130—Agenda for planning London hospitals: King Edward's Fund proposals, 297
Maida Vale Hospital for Nervous Diseases: Department of Occupational Therapy, 64
Marie Curie Hospital for Cancer and Allied Diseases: Re-establishment Fund, 270
Maudsley Hospital, staffing of, 933
Memorial Cancer Hospital, New York: Grant of £1,000,000 for cancer research, 339
Mental: Conditions in, 749—In wartime, 778
Moor Park Hospital, North Shields: Investigation, 482
National Hospital, London: Otological research unit, 126, 139
No. 30 General: Sent to Norway, 589
Nursing staffs: Factors in assessing requirements, 398
Portable surgical, for China, 27
Princess Tsahai Memorial Hospital, Addis Ababa, 74
Queen Charlotte's: The new hospital (annotation), 811
—— Victoria Cottage Hospital, East Grinstead: Gift from Australian Government, 69—Canadian R.A.F. Memorial Wing, 411
Royal Eye Hospital, London: Department of Industrial Ophthalmology established, 518
—— Halifax Infirmary: Bequest, 239
—— Victoria Hospital: Tuberculosis Trust 30th annual report, 329
St. Bartholomew's: New hospital in Watford area, 139—Bequests, 411—Bart's in the war, 592
St. George's: New site at Tooting, 948
St. John Ophthalmic Hospital, Jerusalem: Report for 1944, 151
St. Mary's, Paddington: Centenary celebrations, 22—Disclaimer, 592
Services, future: Pattern for London and surrounding area, 56
Sheffield Radium Centre: Gift for radio-therapeutic research, 270
Sick Children, Hospital for, Great Ormond Street: 93rd annual report, 184
Small: Efficiency and economy, 330
Tata Memorial Hospital, Bombay: First triennial report, 129
Uganda: Hospital and Medical School to be established, 507

HOUGHTON, L. E. (and T. Holmes SELLORS): *Aids to Tuberculosis for Nurses*, 390
HOULTON, C. L.: Tribute to Margaret Balfour, 904
HOUNSLOW, A. G.: Acid-fast organisms in gastric juice, 702
HOUSDEN, Leslie: The happy family, 60
—— Leslie George: *Home-Life and the Community*, 158
Housing: Statistics, 32—And health (H. Nelson), 395 (O); correspondence, 508, 585
HOUSTON, John (and others): Significance of E.S.R., 741
HOWITT, H. G.: "Atomic pregnancy," 342
HUBBACK, Eva M.: *Population Facts and Policies*, 49
HUDSON, H. N. G.: Operation for recurrent subluxation of temporo-mandibular joint, 354—Three cases of closed abdominal injury, 419 (O)
HUGGETT, A. St. G. (and Esther M. KILLICK): Medical education: need for personnel, 439
Hughes, Ernest William Shaw, obituary notice of, 906
HUGHES, R. Arthur: Oedema during macrocytic anaemia, 782
HUMPHREYS, D. R.: Spontaneous lobectomy associated with *B. friendländeri*, 186
HUNT, J. Gordon: Women in labour, 332
HUNTER, J. W. A.: Aldridge's operation for urinary stress incontinence, 438
Hussein, Ghulam, obituary notice of, 788
HUTCHINSON, C. A.: Fenestration for otosclerosis, 626
HUTCHISON, Sir Robert: *Elements of Medical Treatment*, 4th ed., 86
Hydatid disease of lung, 135, 197
Hydrogen peroxide, sore finger-tips in industry protected by (J. Vincent Bates), 154 (O)
Hydronephrosis and calculus formation, 341
Hydrops and foetal erythroblastosis in twins (Eileen Malone), 496
Hyperhidrosis of palms, 203
Hypertension (T. Izod Bennett), R.S.M., 661; correspondence, 746
—— arterial, review of book on, 187
Hypoglycaemic fatigue, 234
Hysteria mimicking meningism (B. E. Finch and N. Tronchin-James), 532
—— canine (annotation), 432

I

IBBOTSON, Colin (and M. C. MENON): Scrub typhus: a clinical study, 112 (O); Prophylactic vaccine, 293, 399
Ichthyosis, 713, 832
Ileitis, chronic regional, 332, 405
Ileus, paralytic, prophylaxis of, by administration of morphine (J. T. Chesterman and W. J. Sheehan), 528 (O); correspondence, 622, 740, 817, 938, 950
ILLINGWORTH, C. F. W. (and B. M. DICK): *Text-book of Surgical Pathology*, 5th ed., 356

INCOME TAX:
Additional practice, acquisition of, 949
Annuity, repayment of tax on, 241
Appointment, salaried: Hotel expenses, 143—Car expenses, 413—Expenses: living in, 794
Balance sheets, 107
Board and lodging, payment in lieu of, 910
Car: Replacement, 341, 484, 910—Deduction for use of, 376—Sale of car, 376—Car expenses, 520—Future sale of, 949
"Cash" or "bookings" basis, 74—Cash books, 413
Change from civilian earnings to Army pay, 107
Changes in employment and service, 143
Colonial Service, retirement from, 73, 241, 272
Dispensers' salaries, 272
Domestic help, 413
Eire resident: English building society interest, 714
Equipment, new, 241
Examiner's fees, 74
Expenses: Allowance, 73—In connexion with different appointments, 73—Life assurance, 592—Of employment, 832
Furniture, depreciation of, 308
Ground rent and repairs, 142
India, return from, 143
Indian Army personnel, 376
Interest on war loan, 376
Locumtenent, 592, 794
Maid: Cost of board and lodging, 107
Military pay for period of return voyage, 871
Partnership: Partner acquires whole practice, 36—Tax due on share of profits, 73—Division of liability, 107—Taking on a partner, 142—Additional share of profits, 484
Part-time employment, 73
Pensions, 341, 376
Postgraduate course, 241, 909
Practice: Assessment here while serving abroad, 142—Purchase of, 308, 413—Starting: expenses, 413
Premises, ownership of, 413
Refund: Amount due, 909
Residence: Free, 949—Payment in lieu of, 949
Return to U.K., 107
Sickness insurance benefit, 910
Subscriptions, professional, 828
Travelling expenses, 949
Voluntary disposition of income, 341
War damage contributions, 107
Wife: Salary as dispenser, 376—Payment to, 714
X-ray apparatus, 74

Incontinence: Aldridge's operation for urinary stress incontinence (J. W. A. Hunter), 438—In the elderly, 792
Indexes, half-yearly, 20, 929
India: Conference of medical consultants, 70—Longevity and old age in the Punjab (Khan Bahadur M. Yacob and Satya Swaroop), 433 (O); correspondence, 545—Leprosy control (annotation), 466—Public health training in, 541—Health of Bengal, 1941, 907
Industrial Welfare and Personnel Management, 283

INDUSTRY:
Graphite workers, pneumoconiosis of, 195
Hands: Sore finger-tips in industry—protection by hydrogen peroxide (J. Vincent Bates), 154 (O)
High temperatures, work at (leading article), 357
Ozone in the factory, 520
Women on war work (annotation), 325

INFANTS:
Atresia, duodenal, in newborn (Patricia Leitch), 885
Book reviews, 886
Breast-feeding: Newer concepts of, 97, 267—Mastitis and, 340—Insufficient milk, 592—To time-table, 744, 862
Bronchitis and pneumonia in London infants (annotation), 466
Feeding: In infancy and childhood (book review), 427—And duodenal ulcer, 702
" Flat feet," 71
Hiccup, 240
Icterus gravis neonatorum, relation between congenital obliteration of bile ducts and (M. O. Skelton and Geoffrey H. Tovey), 914 (O)
Infant feeding and duodenal ulcer, 585
Intussusception: Mikulicz resection operation for gangrenous intussusception in infants (T. A. Hindmarsh and others), 382 (O)
Language, acquisition of, 204
Lumbar puncture in, 483
Management of Older Babies (pamphlet), 607
Meningitis, pneumococcal: Case with recovery in female newborn infant (P. Hogg and C. D. Bradley), 194
Mortality of, and social conditions (leading article), 392; correspondence, 477
Newborn: Reviving the, 144—Unusual cause of intestinal obstruction in, 414
Ophthalmia neonatorum, 411
Parenteral infections, use of penicillin in (E. C. Ross Couper), 876
Premature: Stilboestrol for, 374—Heated carrier for transporting (J. N. O'Reilly), 731
Still's disease in girl of 19 months (A. Louis), 569
Suffocation, accidental (W. H. Davison), 251 (O); correspondence, 332
Swaddling, 74
Thumb-sucking, 74

Infection: Transmission of, during withdrawal of blood, 62—Further reduction in hospital infection of wounds (Valentine Logue and Wylie McKissock), 415 (O)
Infertility, 633
Influenza: Heart in (annotation), 359—Will there be an epidemic? (leading article), 732—The *in vitro* sensitivity of *H. influenzae* to penicillin, with special reference to meningeal strains of Pittman's Type b (M. Gordon and K. Zinnemann), 795 (O); meningitis due to a penicillin- and sulphonamide-sensitive Pittman b strain of *H. influenzae*: recovery (D. G. McIntosh and Constance F. Drysdale), 796 (O)
INGRAM, John T.: Fox-Fordyce disease, 242
Injections, subcutaneous, rubbing the skin after, 830
INSLEY, John L.: Blind intubation, 512
Institute, Agricultural Economic Research: *Country Planning. A Study of Rural Problems* (leading article on), 358
—— of Hospital Administrators: Report on training and qualifications of administrators, 797
—— Lister: Work of, 94
—— National, for the Blind: Annual report, 948
—— of Physics: Report for 1944, 25
—— Queen's, of District Nursing: Midwifery cases in 1944, 398
—— Regional Radium, Bradford: Research scholarship founded, 632
—— Royal, of Public Health and Hygiene: President elected, 447
—— —— Sanitary: Chairman elected, 33—European health problems: the work of U.N.R.R.A., 892
Institution, Royal Eastern Counties', for the Mentally Defective: Retirement of Dr. F. D. Turner, 137
Insulin: For delirium tremens (annotation), 91—And the motorist (medico-legal), 815. *See also* Diabetes
Insurance: Industrial injuries, 552—Health insurance benefit, 631
—— unemployment, housemaid-receptionist and, 376
Intelligence and epilepsy (annotation), 773
Intermarriage of black and white, 591
Internment: Doctors released from Japan, 518, 554, 589, 711
Intestinal antiseptics, 142
Intravenous therapy, review of book on, 427
Intussusception in infants. *See* Infants
Iodine: " Talbot's iodine," 105
Iodochlorhydroxyquinoline, 413
Iraq, conditions in, 413
Iron and thrombosis, 634
IRWIN, D. H. (and E. FRANKEL): Unusual case of ruptured aortic aneurysm, 426—The child with frequent colds, 566 (O); correspondence, 667, 703, 742, 823
ISMAIL, C.: Sleep-walking, 108
Italy: Journals and books for, 36, 832—Nutritional surveys (annotation), 575

J

JACKSON, E. C. S. (and H. J. SEDDON): Influence of galvanic stimulation on muscle atrophy resulting from denervation, 485 (O); correspondence, 622
—— (and others): Galvanic stimulation of denervated muscle, 745
—— Margaret Hadley: Semen analysis, 230
JACOBS, A. L.: Stethoscope *versus* x rays, 857
Jacques, Evelyn Bessie (née Salter), obituary notice of, 867
Jamaica: Dietary (W. E. McCulloch), 127 (O)
JAMES, G. W. B.: Lessons in psychiatry learned from military service (R.S.M.), 620
JAMIESON, G. A.: Psychiatry in the Services, 624
JARCHO, Saul: Knyveton's *Diary of a Surgeon*, 910
Jaundice, homologous serum: Mortality rates, 203—Prevention of (J. F. Loutit and K. Maunsell), 759 (O)—Transmission of, during blood transfusion, 783
—— induced, therapeutic effect of, in rheumatoid arthritis (Frances Gardner and others), 677 (O); correspondence, 782, 859, 864
JASLOWITZ, H.: Reaction to penicillin, 767
JEFFERSON, Geoffrey: Neurologist and neurosurgeon, 473
—— Gertrude: Disclaimer, 108
Jelly-fish stings, 300
Jenkins, W. David, obituary notice of, 867
JERRAM, Ursula (and Doyne BELL): Tuberculin testing in children: comparison of methods, 215 (O)
JOAD, Margaret: Acute yellow atrophy after trilene anaesthesia, 820
JOHNSON, E. H. (and J. DUNCAN): Neutralizing gastric HCl, 556
—— Emily E.: Trilene in midwifery, 331
—— M. L. (and M. ABERCROMBIE): Premedical zoology, 262 (O); correspondence, 334, 404—*New Biology*, 533
—— W. M. (and O. T. DAVIS): Observations on 22 cases of pancreatitis, 420
JOHNSTON, D. J. Gair: Safe milk, 330
—— Lennox: Effects of tobacco smoking on health, 98
JOLY, J. S.: Emergency treatment of fractured femur with shortening, 232
Jones, Charles Edward Mellersh, obituary notice of, 268
—— David Johnston, obituary notices of, 587, 944
—— D. W. Carmalt: *Annals of the University of Otago Medical School, 1875-1939*, 289
—— E. Idris: Telling the patient, 581
—— F. Avery (and C. M. FLETCHER): Risks of gastroscopy with the flexible gastroscope, 421 (O); correspondence, 510, 543
—— G. J.: A misnomer (sulphonamides), 450
—— H. M. Royds: Estimation of E.S.R. at sea, 546
—— Ronald: Massive surgical emphysema, pneumothorax, and pneumoperitoneum, 530 (O); correspondence, 665, 817
—— Flight Lieut. Samuel Lloyd, obituary notice of, 335
—— Sydney: Administration of penicillin, 400
—— Sir Thomas, obituary notice of, 237
JOSEPH, J.: Alien doctors, 66
—— Capt. Jacob Hyman, killed, 552
Journal, Indian Army Medical Corps (annotation), 126
—— *of Nervous and Mental Diseases*: Change in editorship, 69
JOYCE, Joseph C.: A coincidence (dextrocardia in twins), 548
Jungle sores, a series of 21 cases of polyneuritis after (R. L. Ward and A. S. Mason), 252 (O)
JUPE, John H.: The electron microscope, 500

K

Kala-azar, asymptomatic, in soldiers from over-seas (T. G. Armstrong), 918 (O)
KALMYKOV, G. F.: Re-amputation, 23
Kaposi's disease: Record of a case of special interest (S. Nesbitt and others), 265
Kayne, G. Gregory, obituary notice of, 101
KEAY, D. M. (and D. G. MCINTOSH): Significance of the E.S.R., 584; correction, 676
—— (and others): Methods for determining plasma proteins. Value in a group of boys aged 14–15, 456 (O)
KEEVIL, Nora L. (and R. Glyn MORGAN): Full-term extra-uterine pregnancy associated with extensive prolapse, 649
KELLY, Carlisle: Domiciliary midwifery and the family doctor, 402
KELMAN, James: Significance of the E.S.R., 823
KELSEY, H. A.: A very large granulosa-cell tumour of ovary, 922
KEMP, P. R.: Psychiatry in the Services, 706
KENNEDY, J. M.: Case of laryngo-tracheal diphtheria in a pregnant woman, 87
—— John: Experiences of a medical prisoner-of-war, 513
—— Walter P.: Health education, its problems and methods (Chadwick lecture), 621
KENNEY, Richard G. (and others): Treatment of infective hepatitis, 298; leading article, 573
Kenya: Malaria epidemics at exceptionally high altitudes (P. C. C. Garnham), 45 (O)
Kerato-conjunctivitis. *See* Ophthalmology
KERLEY, Peter: Stethoscope *versus* x rays, 856
KERN, R. A. (and others): 41 cases of Vincent's angina treated by penicillin, 718
KERR, L. M. (and G. K. DE FOREST): Small epidemic of streptococcal diseases in nurses attending an infected child, 409
KERSLEY, G. D.: *The Rheumatic Diseases*, 2nd ed., 606
KESSEL, Lipmann: A simplified method of applying the Thomas splint, 463
KEYES, Muriel: Epilepsy and menstruation, 143
KEYS, Thomas E.: *The History of Surgical Anaesthesia*, 571
KHANNA, M. N.: Torsion of omentum, 729
Kidneys: Dietary accommodation in renal failure (annotation), 696—Chronic interstitial nephritis, diet in, 909
Kidson, Major Campbell William, death of, 552
Kilgour, Major Hugh McPherson, missing from Singapore, now reported to have died as prisoner of war in Rangoon, 32
Killen, Willian Marcus, obituary notice of, 516
KILLICK, Esther M. (and A. St. G. HUGGETT): Medical education: need for personnel, 439
KIMBER, W. J. T.: Disability not disablement, 864
Kindberg, Michael Léon, death of, 409
KING, A. J.: Future of venereology, 902
—— E. J. (and F. D'Arcy HART): Pneumoconiosis of coal-miners, 194
KINMONTH, J. B.: The filigree operation, 98
KINSELLA, V. J.: Tobacco smoking and health, 900
KIRKPATRICK, H. J. R. (and A. J. C. HAMILTON): Actinomycosis successfully treated with penicillin: report of 2 cases, 728 (O)
—— Surg. Lieut. Ross McFaul, missing, presumed killed, 238
KIRMAN, Brian H. (and Charles COMERFORD): Pellagra in a morphine addict, 44 (O): correspondence, 547, 705, 785, 823
KIRTON, A. C.: Venereal disease prophylaxis, 28
KIRWAN, P.: Treatment of intractable eczema, 36
KITCHIN, D. Harcourt: Tribute to R. D. Gillespie, 787
—— Ian D.: March fracture, 64, 134
—— —— (and David A. RICHMOND): Two unusual stress fractures, 214 (O)
Knee-joint: Changes in, at various ages (leading article), 290—Arthrography of (E. Somerville), 738
KNIGHT, Kenneth L. (and Richard M. and George E. BOHART): *Keys to the Mosquitoes of the Australasian Region. Including a synopsis of their Distribution and Breeding Habits*, 607
Knyveton's *Diary of a Surgeon*, 910
KODICEK, E.: Vitamin C in healing of skin wounds and in bone repair, 96
KOLMER, John A.: *Penicillin Therapy, including Tyrothricin and Other Antibiotic Therapy*, 462
KREMER, Michael: Meningitis after spinal analgesia, 309 (O); correspondence, 402, 511
Kruckmann, Emil, death of, 447

L

Labyrinth. *See* Otology
Lactation. *See* Obstetrics
LAFITTE, François: *Britain's Way to Social Security*, 923
LAIRD, S.M.: Acute yellow atrophy after trilene anaesthesia, 820
LAKE, Norman C.: A freakish occurrence, 287—Small hospitals: efficiency and economy, 330
LAMB, J. H.: Two cases of vesicular eruption due to penicillin, 723
Lambah, Vishwa Mitra, obituary notice of, 30
LAMBERT, Wright: An eyeless needle, 242—Trilene analgesia in general practice, 403—Women in labour, 513
Lambliasis, diiodo-hydroxyquinoline in, 512
Lamont, Lieut.-Col. John Charles, obituary notice of, 32
Lancashire, George Herbert, obituary notice of, 788
Lancaster, Ernest le Cronier, obituary notice of, 587
LAND, Frank T.: Novelists' resuscitation after drowning, 241
LANDER, C. H.: A case of acute dilatation of stomach, 387
LANDSTEINER, Karl: *The Specificity of Serological Reactions* (revised edition), 389
LANE, R. F. (and others): Epidemic diarrhoea and vomiting, 627
—— Lieut.-Col. William Byam, obituary notice of, 826
Lanette wax, 449
LANGDON-BROWN, Sir Walter: Tribute to Dr. T. Wilson Parry, 515
LANGDON-DAVIES, John: Press publicity, 444
LAPAGE, Geoffrey: Action of rubber on penicillin, 474
LATNER, A. L.: Treatment of infective hepatitis, 266
Laurie, Alan R., obituary notice of, 101
—— J.: Psychiatry in the Services, 669
LAUTERBACH, D.: Epidemic diarrhoea and vomiting, 746
LAVERY, F. S.: Binocular and monocular vision, 520
LAWRENCE, R. D.: Banting Memorial Diabetic Convalescent Home, 407
Lawrie, E. S., death of, during internment in Singapore, 660
LAWSON, Sir Arnold: Removal of the wrong eye, 367—R.M.B.F. Christmas gifts, 543
—— H. J., death of, during internment in Singapore, 660
LAYCOCK, J. D.: Continuous pentothal, 511
LAZARUS, S.: Sulphaemoglobinaemia due to aniline derivatives, 565 (O)
LEACOCK, Aubrey: Case of chronic undermining ulceration treated with penicillin, 765 (O); correspondence, 864
Lead palsy, 107

Leading Articles:
Anti-vivisection societies and income tax, 291
Artificial limbs, 502
Aviation medicine, problems of, 123
Buying and selling practices, 770
Carbon monoxide poisoning, 887
Choline chloride, dosage and effects of, 573
Decaying village, 358
Dissemination of poliomyelitis, 323
Electromyography, 925
Epidemic diarrhoea, 189
—— risks in Europe, 809
Fenestration for otosclerosis, 430
Fifty thousand members, 125
Food conditions in Poland, 391
—— habits, study of, 536
Freedom of the profession, 851
From war to peace, 221
Future of populations, 258
Haemoglobin levels in the fourth year of war, 89
Hospital nurses: a new deal, 733
Infant mortality and social conditions, 392
Influenza epidemic: Will there be one? 732
Knee-joint, changes in, at various ages, 290
Lung disease in coal-miners, 574
Malaria: Control in the Tropics, 808—Triumph against, 653
Malignant tumours of nasopharynx, 324
Mass observation and the birth rate, 926
Medical future of the Colonies, 693
—— profession, organization of, in wartime, 17
Medicine's debt to Pasteur, 429
Microbial antagonisms, 652
Milk still unsafe, 160
Minister's first steps, 851
Nutrition in Newfoundland, 124
Nutritional diarrhoea, 258
—— macrocytic anaemia, 501
P and Rh, 535
Pancreatic secretion, external, 51
Penicillin, mode of action of, 464
Post-war Vienna, 852
Prostatic cancer, operative treatment of, 609
Representative Meeting, 159
Rh incompatibility and mental deficiency, 188
Rheumatism, campaign against, 771
Sulphonamide treatment, 465
Surgical science in England, 888
Syringes and spirit, 221
Thrombo-embolism, 50
Undernutrition in Belgium, 694
Vaccination against whooping-cough, 222
Vesico-vaginal fistula, 89
Vitamin C and the gums, 18
Work at high temperatures, 357
X rays, discovery of, 608

League, International, against Epilepsy: Resumption of British branch, 373
LEAK, W. N.: Press publicity, 368—Descent of testis in relation to temperature, 704
LEARMONTH, J. R.: Hospital diets, 97
LEAVELL, Hugh R.: Local health services in U.S.A., 25
Lee, Miss E., obituary notice of, 371
—— J.: An unusual case of the labyrinthine fistula symptom, 47
—— Maurice: Medical photography, 407—Non-specific mesenteric lymphadenitis, 818
LEGGETT, Bernard: Radiology and pyloric stenosis, 941
Legumes, sprouting, 505, 676
Leicester: *Atmospheric Pollution. A Scientific Survey*, 924
Leishmaniasis, 129
LENDRUM, A. C.: Penicillin injection apparatus, 199—Alien doctors, 549
—— (and I. LOMINSKI): Penicillin pastilles, 818
Lennane, Gerald Quin, obituary notice of, 586
LENNIE, R. A.: Tribute to James Hendry, 408
LENNON, G. Gordon: Paratyphoid ulcer of rectum, 496
LENNOX, Mary (and others): Role of animal-type dermatophytes in human ringworm, 346 (O)
Leprosy: Control in India (annotation), 466—In British Empire, 751
Lesion, the discharging, 784, 860
LESSER, S. A. Hugh: Trick test to detect night-blindness "malingerers," 644 (O)
LETHEM, W. A.: Safe milk for children, 74
LETT, Sir Hugh (and W. Russell BRAIN): Hospital Services Plan, 936
Leucopenia and agranulocytosis (book review), 321
LE VAY, A. D.: Costo-clavicular compression of brachial plexus, 24
LEVER, J. M. (and G. B. BARKER): Osteomyelitis of skull due to *Salmonella typhi*, 459 (O)
LEVEUF, J.: Congenital dislocation of hip, 737
LEVICK, P. G.: ? abuse of sulphathiazole, 403
LEVIEN, John Mewburn: *The Singing of John Braham*, 220
LEVITT, W. M.: Responsibility for accidents in radiological departments, 620
Lewer, R. P. S., obituary notice of, 748
LEWIS, A.: Weight reduction by dieting, 300
—— Nolan D. C. (editor): *The* 1944 *Year Book of Neurology, Psychiatry, and Endocrinology*, 157
Lice and the G.P., 272
LICHTENSTEIN, M.: Adhesive corset dressing for gaping wounds, 158
Lightning, effects of (annotation), 575
Limbs, artificial (leading article), 502
Lindeman, Col. Sidney John Liddon, death of, 906
LINDSAY, Thomas: Primary cancer in accessory sinus, 308
Linnaeus: Recovery of his *Materia Medica*, 931
LINSELL, W. D.: An aid to transfusion, 692
Listerellosis, human (annotation), 890
Little's disease, 634

LIVER:
Acute yellow necrosis following trilene anaesthesia (K. N. Herdman), 689 (O); correspondence, 784, 820
Amoebic abscess, pregnancy after, 106
Extracts: Restriction on use removed, 202, 373—Choice of, 482, 714, 910—Use of, 794—Intramuscular injection of, 948
Surface-marking the lower border, 941

LIVINGSTONE, Sylvia M. (and L. J. WITTS): Effects of choline, 664
Lobectomy. *See* Lungs
LOCKET, S.: A syndrome resembling Addison's disease, with severe anaemia, steatorrhoea, and melanuria, 417 (O)
LOCKETT, Mary: Role of renin, 662
LOGAN, David Dale (and Eneas K. MACKENZIE): Domiciliary midwifery and the family doctor, 294; correspondence, 365, 401, 441
LOGUE, R. B. (and J. F. H. HANSON): Case of Complete heart-block in pre-eruptive stage of rubella, 672
—— Valentine (and Wylie MCKISSOCK): Further reduction in hospital infection of wounds, 415 (O)
LOMINSKI, I. (and A. C. LENDRUM): Penicillin pastilles, 818
London infants, bronchitis and pneumonia in (annotation), 466
Longevity and old age in the Punjab (Khan Bahadur M. Yacob and Satya Swaroop), 433 (O); correspondence, 545, 624, 950
LOSEN, A. P. (and others): Observations on 96 cases of sporadic infectious mononucleosis, 88
LOTHIAN, Douglas: Report for 1944 on electro-convulsive therapy at Down Mental Hospital, 567
LOUIS, A.: Treatment of Still's disease, 569
—— Capt. Percy, previously reported missing at Arnhem, now officially presumed killed in action, 672
LOURIE, E. M. (and others): Tropical medicine, 895
LOUTIT, J. F. (and K. MAUNSELL): Prevention of homologous serum jaundice, 759 (O)
LOVE, R. J. McNeill: Spinal analgesia, 897
LOVETT, T.: Domiciliary midwifery and the family doctor, 366
LOW, W. Alexander (and A. D. MARSTON): Staffing of county hospitals, 902
Lowe, Arthur Hamilton, obituary notice of, 370
LOWSON'S *Textbook of Botany*, 9th ed., 886
LUCK, James Murray (editor): *Annual Review of Physiology*, 186
Ludwig's angina, 369

LUNGS:
Emphysematous, sequelae of, 665, 817; correction, 910
Fibroma, large, arising from pulmonary pleura of right lower lobe (A. W. Fawcett), 425
Hydatid disease, 135, 197
Injury: Indications ofr surgery in penetrating wounds of chest: importance of pulmonary injury (G. Quist), 521 (O)
Lobectomy, spontaneous, associated with *Bacillus friedländeri* (D. R. Humphreys), 186
Pulmonary Disease, Chronic, in South Wales Coalminers (M.R.C. Special Report) (leading article on), 574

LUNN-ROCKLIFFE, W. E. C.: Breast-feeding of infants, 592
LUNTZ, George R. W. N.: Position of medical research, 97—National research into tuberculosis, 781—Lupus vulgaris, 792; Treated with calciferol, 935
LYALL, Alexander: Spontaneous rupture of rectus muscle, 321—Treatment of acute appendicitis: Study of 480 consecutive cases, 719 (O); correspondence, 863
LYDON, F. L.: Abacterial pyuria, 167—Penicillin: need for control, 367—*Trichomonas vaginalis* infection in the male, 384 (O)
Lymphadenitis, acute non-specific mesenteric (Ian Aird), 680 (O); correspondence, 818, 861
Lymphocytes and antibodies (annotation), 223
Lymphogranuloma venereum, 129
LYNCH, G. Roche: A disclaimer, 592
LYTTON, H.: Alien doctors, 550

M

MACAFEE, C. H. G.: Domiciliary midwifery and the family doctor, 442—Reduction of foetal mortality in placenta praevia, 779
MACARTHUR, Sir W. P.: Problem for bibliophils, 872
MACBRYDE, Cyril M.: *The Analysis and Interpretation of Symptoms*, 498
MACCALLUM, F. O. (and others): Therapeutic effect of induced jaundice in rheumatoid arthritis, 677 (O): correspondence, 782, 859, 864
MCCARTAN, W. (and E. FECITT): First-aid treatment of phosphorus burns, 315 (O)
MCCARTHY, D. F.: Human creeping myiasis, 135—Humanitarianism and the European situation, 549
—— Hugh: Four cases of hemicolectomy, 570
McClelland, Hugh Harper, obituary notice of, 944
MCCLUSKEY, C.: Vulval and pubic boils, 107
MCCLUSKIE, John A.: Swaddling and thumb-sucking, 74—Psychiatry in the Services, 625
McCracken, James Smith, obituary notice of, 408
McCrea, Arthur Selby, bequest to Royal Halifax Infirmary, 239
—— L. E.: Observations on 581 patients with prostatic hyperplasia of all types, 85
MCCULLOCH, W. E.: A tropical dietary (Jamaica), 127 (O)
MCCURRICH, H. J.: Colostomy, 230—Surgical catgut, 784
MACDONALD, D. C.: Intravenous adrenaline, 342
—— George: Acroparaesthesia, 746
—— Peter: The urgent needs of civil medicine, 473
MCDONNELL, M. F.: Death certificates, 234
McDougall, William, obituary notice of, 587
McDowall, Andrew, Order of Al Rafidain conferred on, by King of Iraq, 411
MCFADYEAN, Kenneth: Alphabetical pride, 484
MCFARLAN, A. M. (and others): Trial of whooping-cough vaccine in city and residential nursery groups: report to M.R.C., 205 (O); leading article, 222; correspondence, 334
—— Patrick Frederick, obituary notice of, 200
MCFARLANE, Marjory N.: Haemolytic disease and congenital syphilis in siblings: role of Rh factor, 494 (O)—Anti-M iso-agglutinins in human serum, 883 (O)
MACGOWAN, A.: Perspex in orthopaedics, 512
—— J. P.: Mode of action of vitamin D, 545—Nutritional macrocytic anaemia, 702—Phytic acid and calcium deficiency, 832
MACHARDY, R. S. (and L. T. CLARKE): Housing the returned consultant, 30
McIndoe, A. H., decorated by the President of Poland, 69
MACKINTOSH, H. L.: Morphine prophylaxis of paralytic ileus, 950
MCINTOSH, D. G. (and Constance F. DRYSDALE): Meningitis due to a penicillin- and sulphonamide-sensitive Pittman b strain of *H. influenzae*: recovery, 796 (O)
—— (and D. M. KEAY): Significance of erythrocyte sedimentation rate, 584; corrections, 676, 754
—— (and others): Methods for determining plasma proteins: value in a group of boys aged 14-15, 456 (O)
MACKAY, Angus: Sleep-walking, 241
MACKEITH, Ronald: Cinematograph films of aviation physiology, 199—Pasteur Institute during the occupation, 676
McKelvie, A. R., decorated by the King of Egypt, 70
MACKENZIE, Melville: Local health services in the U.S.A., 25
—— N.: *Temperament, Character, and Personality*, 692
MACKENZIE, Eneas K. (and David Dale LOGAN): Domiciliary midwifery and the family doctor, 294 (O); correspondence, 365, 401, 441
—— W.: Journals and books for Italy, 36, 832
MACKEY, W. Arthur: Aetiology of gall-stones, 700
MACKINTOSH, Hugh L.: Epidemic diarrhoea and vomiting, 666
MCKISSOCK, Wylie (and Valentine LOGUE): Further reduction in hospital infection of wounds, 415 (O)
MCLACHLAN, A. E. W.: *Handbook of Diagnosis and Treament of Venereal Diseases*, 2nd ed., 731
MACLAREN, D. W. D.: Domiciliary midwifery and the family doctor, 365
MACLEAN, Iain H.: Medical supplies for Singapore, 479
MACLEOD, J.: Training the general practitioner, 135
MCLETCHIE, N. G. B.: Crooke-Mellgren cells, 898
MACMAHON, J. Ross: Milk still unsafe, 230
MACMANUS, Desmond: Telling the patient, 706
MCMASTER, A. M.: Prostatic obstruction, 864
MCMURRAY, T. P.: Hugh Owen Thomas and the Thomas splint, 737
MACNALTY, Sir Arthur Salusbury: Medical poets, 698—The Renaissance and its influence on English medicine, surgery, and public health (Thomas Vicary Lecture, R.C.S.), 755 (O); correction, 872—Tribute to Sir Farquhar Buzzard, 943
McNamara, Capt. Robert William, killed in action, 826
MACNEILL, J. Ross: Incision for appendicectomy, 864
MacPhee, Burgess, obituary notice of, 867
MACRAE, T. F. (and others): Food consumption of working-class and lower-middle-class families in Brussels during January, 1945, 351 (O)
Macrae-Gibson, Surg. Lieut. Angus Charles, death abroad, as the result of an accident, 335
MCROBERT, George R.: East of Suez, 128 (O)
MCWATTERS, R. C.: Volvulus of small intestine, 626
MADAN, K. E.: Stovaine anaesthesia, 474
MAEGRAITH, B. G. (and others): Tropical medicine, 895
MAGEE, H. E.: Dietitians, 858
Magnesium, action of, on uterus (annotation), 393; correspondence, 475
MAGURRAN, G. F.: Psychiatry in the Services, 583
MAINLAND, Donald: *Anatomy as a Basis for Medical and Dental Practice*, 497
MAIR, George B.: A criticism of the Bassini operation and its modifications, 178 (O)
—— L. P.: *Welfare in the British Colonies*, 16
MAJEKODUNMI, M. A.: Partial atresia of cervix complicating pregnancy, 320

MALARIA:
Benign tertian: Pamaquin in, 482—Complicating typhoid fever (A. S. Bookless and J. M. Naftalin), 804 (O)

MALARIA (*continued*):
Control: In Italy, 199—Triumph against malaria (leading article), 653—In the Tropics (leading article), 808
Diagnosis and treatment (book review), 497
Epidemics at exceptionally high altitudes in Kenya (P. C. C. Garnham), 45 (O)
Hypersensitivity to quinine and mepacrine (John Orr), 604
Salvarsan and, 27
Symptomatology and treatment, 128
Tests, false positive (annotation), 327

MALINS, J. M.: Globin insulin: a clinical trial, 318 (O)
MALLINSON, F. M.: The child with frequent colds, 567
—— W. P. (and W. WARREN): Repatriation, a psychiatric study of 100 naval ex-prisoners of war, 798 (O)
MALONE, Eileen: Foetal erythroblastosis and hydrops in twins, 496
Malta: Poliomyelitis in, 26, 61—Bubonic plague in, 33—Infant mortality, 673
Manchester: Vital statistics, 436
MANDIWALL, H.: An institute of medical photography, 478
MANSON-BAHR, Sir Philip: Urinary bilharziasis, 61
MARCHANT, Sir James (editor): *Rebuilding Family Life in the Post-War World* (leading article on), 258
Marching on rubber, 404
MARK, P. F. (and others): Record of a case of Kaposi's disease involving thyroid gland and brain, 265
MARKOWSKI, B.: Some experiences of a medical prisoner of war, 361 (O), correspondence, 513
MARKSON, Arthur: Tribute to R. D. Gillespie, 787
MARRACK, John (and Hans HOCH): Estimation of serum proteins, 151 (O)—Estimation of serum proteins by Linderström-Lang gradient, 876 (O)
—— J. R.: Training of dietitians, 857
Marriage: The return of Odysseus: the problem of marital infidelity for the repatriate (Alfred Torrie), 192
MARSH, Frank: Treatment of coma, 167
MARSHALL, C. McIntosh: Waters's operation, 438
—— Geoffrey: Stethoscope *versus x* rays, 856
—— Squad. Ldr. Robert William Stanley, reported missing, 66
MARSTON, A. D. (and W. Alexander Low): Staffing of county hospitals, 902
Martin, Surg. Lieut.-Cmdr. Gerald Noel, obituary notice of, 238
—— J. Purdon: "Discharging lesion" in neurology, 580, 860
MARTINDALE, L.: *The Prevention of Venereal Disease*, 15
MASINA, F. H.: Anaesthetic risks, 623
MASON, A. S. (and R. L. WARD): Polyneuritis after jungle sores: series of 21 cases, 252 (O)
Mass observation and the birth rate (leading article), 926
Mastitis and breast-feeding, 340
—— *See also* Obstetrics
Matheson, John, obituary notice of, 480
Matthew, A. W., obituary notices of, 102, 168
MATTHEWS, B. H. C.: Effects of high altitude on man (Oliver-Sharpey lectures), 75 (O); effects of mechanical stresses on man, 114 (O); leading article, 123; correspondence, 199
MAUNSELL, K.: Transmission of hepatitis (homologous serum jaundice) during blood transfusion, 783
—— (and J. F. LOUTIT): Prevention of homologous serum jaundice, 759
MAXWELL, James: Stethoscope *versus x* rays, 856
MAYBERRY, G. M.: Artificial pneumothorax refills, 900
Meat, putrefied, effects of, 555, 831
Meckel's diverticulum, case of gangrene of (D. A. Grattan), 85
Medical appliances, bureaucracy and the control of, 65
—— auxiliaries, 444
—— call-up, 750: short-service commissions and release, 750
—— defence in Scotland, 737
—— —— Union: Annual Meeting, 499
—— demobilization: Return of the doctor (H. S. Souttar), 163—Progress of, 224—Release of doctors, 305, 372, 447—Medical officers in Army, 533, 673—N. Ireland doctors, 553—Release of Naval medical officers, 589, 673, 827—Demobilization of doctors, 663, 673, 709, 945—Air Force groups, 655, 735
—— education: Recommendations of Goodenough report, 199, 267—Premedical zoology (M. Abercrombie and M. L. Johnson), 262 (O); correspondence, 334, 404—Need for personnel, 439—Training the released Service doctor, 477, 585, 707, 824—Training of clinical teachers (Norman Capon), R.S.M., 662—Scholarships for medicine, 790
—— films: Catalogue of (annotation), 226; correspondence, 335—Recent hand list of, 500—On children's health, 590
—— manpower: Distribution of, 588—British and alien, 750
—— missions: Report, 1944, of Kashmir Medical Mission, 119
—— Museums, Wellcome, 471
—— photography: In hospital, 328, 407—An Institute of Medical Photography, 478, 548, 704—Clinical photography, 785
Medical poets (Sir Arthur MacNalty), 698
—— practice: Organization of, in wartime (leading article), 17; tribute by Minister of Health, 22—Encyclopaedia of (book review), 85—Protection of practices scheme, 305—Compensation for, 553—Sale of, 709—Buying and selling (leading article), 770; correspondence, 825, 859, 903—Sale and purchase of practices, 868
—— prisoners in Singapore: Letter from R. E. Anderson, secretary of Malaya Branch of B.M.A., 660
—— profession: Housing the returned consultant, 30—Alien doctors, 66, 136, 478, 514, 549, 628, 673, 945—Training the general practitioner, 135, 303—Doctor's expectation of life, 171—Doctors and the social trend, 235, 302, 334, 368, 405, 445, 476, 484, 514—"Doctor" or "medical practitioner"?, 242—Ratio of doctors to civilian population, 305—Plea for the young specialist, 406—Doctors released from internment in Japanese hands, 447, 631—Recognition of civilian bravery, 619—Doctors in uniform, 628—Shortage of doctors, 673; and call-up, 945—Civilian doctors this winter, 709—Purchase tax on cars, 868—Cars for doctors, 945
—— —— Negotiating Committee. *See* Committee
—— Register: "Struck off the *Register*," 71
—— Research: Position of, 29, 97—In Eire, 363
—— schools, opening of: London School of Medicine for Women, 472—Middlesex Hospital Medical School, 472—Westminster Hospital Medical School, 507—College of the Pharmaceutical Society, 507
—— students: Release from Forces, 32, 589; corrected, 631—Conference of, 506—Women, 828—Fees, 868
—— supplies for Singapore: An appeal, 479
—— women: Active practice of, 242
Medicine: The art of, in relation to the progress of thought (annotation), 53—Integration of, 64—Labour and (annotation), 161—The advance of (book review), 288—A history of (book review), 606—Welfare work a branch of, 786, 865—Politics and, 824—The aim of, 824—And the State, with special reference to the E.M.S. (Walter Elliot), 911 (O)—The early Jewish contribution to (book review), 930
—— aviation, problems of (leading article), 123. *See also* Stress: Altitude
—— B.L.A. *See* War
—— civil, the urgent needs of, 473
—— history of: The Renaissance and its influence on English medicine, surgery, and public health (Sir Arthur Salusbury MacNalty, Thomas Vicary Lecture, R.C.S.), 755 (O); correction, 872
—— legal (book review), 730
—— preventive: Rockefeller Fellowships, 227—Book review, 355
—— tropical: In war and peace (C. M. Wenyon), 774 (O); correction, 832; correspondence, 895—46th Report of Liverpool School, 834—Diseases in the Tropics (book review), 849
—— war, inter-Allied conferences on, 88

MEDICO-LEGAL:
Anti-vivisection societies not charitable bodies, 265
Case of a "cocktail tonic," 931
Insulin and the motorist, 815
Seaman's right to treatment, 236
Solicitor at fault, 371
Young offender, 137

Medico-legal applications of blood grouping (annotation), 360
MEGAW, Sir John W. D.: Scrub typhus as a war disease, 109 (O); Prophylactic vaccine, 293, 399
Melanuria: A syndrome resembling Addison's disease, with severe anaemia, steatorrhoea, and melanuria (S. Locket), 417 (O)
MELLANBY, Kenneth: *Human Guinea Pigs*, 691
Ménière's syndrome. *See* Otology
Meningism, hysteria mimicking (B. E. Finch and N. Tronchin-James), 532
Meningitis: After spinal analgesia (Michael Kremer), 309 (O); correspondence, 402, 511—Diabetes and epilepsy after, 341—Penicillin in, 753—The *in vitro* sensitivity of *H. influenzae* to penicillin, with special reference to meningeal strains of Pittman's type b (M. Gordon and K. Zinnemann), 795 (O)—Meningitis due to a penicillin- and sulphonamide-sensitive Pittman b strain of *H. influenzae*: recovery (D. G. McIntosh and Constance F. Drysdale), 796 (O)
—— cerebrospinal: Sequelae of cerebrospinal meningitis. A follow-up study of 986 cases from the American Red Cross-Harvard Field Hospital Unit (John A Degen, jun., with the assistance in the field of three public health nurses), 243 (O); correction, 308—A case of paraplegia after (H. Hilton Stewart), 319 (O)—Neurological complications in cerebrospinal meningitis treated with penicillin (A. R. Forrest), 805
—— meningococcal: Observations on 165 cases with 9 deaths (A. H. Meyer), 532
—— pneumococcal: Female newborn infant treated with sulphadiazine: recovery (P. Hogg and C. D. Bradley), 194
Meningo-encephalitis: Ten cases in a total of 165 cases of mumps (C. L. Steinberg), 21
MENNELL, James B.: *Physical Treatment by Movement, Manipulation, and Massage*, 5th ed., 462
MENON, M. C. (and Colin IBBOTSON): Scrub typhus: a clinical study, 112 (O); Prophylactic vaccine, 293, 399
Menopause; Menstruation. *See* Gynaecology
Mental deficiency: Rh incompatibility as a cause of (leading article), 189; correspondence, 194
—— disorder, physical therapy in, 901
—— hygiene: Lasker award, 764
—— patients: Foster homes for (book review), 121—public assistance, 869
Mepacrine: Psychosis due to (annotation), 162—Hypersensitivity to quinine and (John Orr), 604
Mersalyl and cardiac failure, 308
MERYON, C. E.: "Under the influence," 234
MEYER, A. (and Donald TEARE): Cerebral fat embolism after electrical convulsion therapy, 43 (O); correspondence, 167
—— A. H.: Observations on 165 cases of meningococcal meningitis with 9 deaths, 532
—— Richard: Treatment of unconfirmed amoebiasis, 27
MICHAELSON, I. C.: Device for fixation of a Wolfe graft, 49
Microbial antagonisms (book review), 885
Micro-organisms, the use of, for therapeutic purposes (Sir Howard W. Florey, Lister Memorial Lecturer, R.C.S.), 635 (O); leading article, 652
Microscope: Projection microscope for use in daylight (T. S. Davies), 428—The electron microscope (John H. Jupe), 500
Middlesex: Mass miniature radiography of factory groups (W. Pointon Dick), 568 (O)
Midwifery. *See* Obstetrics
Migraine: Ergotamine for (annotation), 654; correspondence, 745—Carbachol for, 754—Ergometrine for, 784
MILES, Ernest: Management of the permanent colostomy, 229
Milk: How is milk dried?, 35—Children and dried milk, 72—Safe milk for children, 74, 107—Bacteria in relation to milk (book review), 85—Milk still unsafe (leading article), 160; correspondence, 230, 301—Education in safe milk, 230—Safe milk, 330, 476—Standards enforcement, 338—Pasteurization, 367, 666, 901; in Adelaide (annotation), 928—And adjectives, 404—Tea-making and tuberculous milk, 514—T.T. milk in schools, 828, 900
MILLARD, C. Killick: The Edinburgh outbreak of smallpox, 1942, 63
Miller-Abbott tube, 754
MILLIGAN, E. T. C.: Management of the permanent colostomy, 229
—— W. Liddell: Psychiatry in the Services, 582
MILLIN, Terence: Review of 200 cases of cancer of prostate, 935
MILLS, Arthur: Shock and open ether, 938
—— (and Margaret SOUTAR): General anaesthesia and the temperature of inhaled gases, 646 (O)
—— J. I.: Hospital dietitians, 858
—— Raymond: Famine oedema: a clinical description, 330
MILNE, John A.: Case of nocturnal haemoglobinuria, 84 (O)
MILNER, G. C.: The child with frequent colds, 67
Mining: Resettlement of miners with silicosis, 32—Pneumoconiosis of coalminers, 194—Lung disease in coalminers (leading article on M.R.C. Report on Chronic Pulmonary Disease in South Wales Coalminers), 574
MINTON, J.: Eye diseases in the East, 739
Misnomer: Sulphonamides, 450
Moir, John H., obituary notice of, 30
—— John Lowndes, obituary notice of, 337
MOLONEY, William Curry: Rh factor and blood transfusion. Observations on a group of Rh-negative individuals transfused with Rh-positive blood, 916 (O)
MONCRIEFF, Alan: Maternity and child welfare, 6—*Psychology in General Practice*, 288—Tuberculosis in childhood (Varrier-Jones Memorial Lecture), 777
—— L. A.: The "stamping" of the Guards, 9
Mononucleosis, infective, observations on 19 cases (D. Solomons), 659
—— sporadic infectious: Observations on 96 cases (J. H. Press and others), 88
MONSARRATT, K. W.: *Thoughts, Deeds, and Human Happiness*, 15
MOOR, Frewen: Housing and health, 508
MOORE, D. Fitzgerald: Diminution of vision in returned prisoners of war, 401
—— Robert Allan: *A Textbook of Pathology. Pathologic Anatomy in its Relation to the Causes, Pathogenesis, and Clinical Manifestations of Disease*, 691
MORAN, Lord: Address at opening of London School of Medicine for Women, 472—Demobilization of doctors, 663
—— (and Sir Alfred WEBB-JOHNSON): Medical books for Holland, 740
—— Herbert Michael, obituary notice of, 904
MORGAN, Alan D.: Misleading evidence in establishing time of death, 255
—— E. W.: Some suggestions and suggestions, questions, 872
—— J. M.: Infant feeding and duodenal ulcer, 5
—— R. Glyn (and Nora L. KEEVIL): Full-term extra-uterine pregnancy associated with external prolapse, 649
—— Russell H. (and Herman E. HILLEBOE): *Radiography of the Chest*, 86
MORLEY, A. H.: Management of persistent occipito-posterior presentations, 143
—— E. B. (and Sir Henry TIDY): Glandular fever and infectious mononucleosis, 896
MORONEY, James: Treatment and end-results in acute appendicitis, 729
—— P. B.: A technique of drilling the glenoid. Bankart's operation for recurrent dislocation of shoulder, 122; correspondence, 197

Morphine: Pellagra in an addict (Charles Comerford and Brian H. Kizman), 44 (O); correspondence, 547, 705, 785, 823—Prophylaxis of paralytic ileus by administration of morphine (J. T. Chesterman and W. J. Sheehan), 528 (O); correspondence, 622, 740, 817, 938, 950
MORRICK, A.: Whooping-cough vaccination, 334
Morris, Edward, obituary notice of, 168
— G. E.: Multiple ulcers of legs due to infestation with body lice, 649
— Hugh: Examination questions for radiographers, 832
MORRISON, B. (and others): The Mikulicz resection operation for gangrenous intussusception in infants, 382 (O)
MORSE, I. G. (and others): The shortage of nurses, 242
MORSON, Clifford: Urinary bilharziasis, 60
MOSCHOWITZ, Eli: *Vascular Sclerosis. With Special Reference to Arteriosclerosis, Pathology, Pathogenesis, Etiology, Diagnosis, Prognosis, Treatment*, 767
MOSELEY, H. F.: *Shoulder Lesions*, 49
Mosquitoes of the Australian region (book review), 607
Mottram, James Cecil, obituary notice of, 587
Moulds, allergy to, in England (E. M. Fraenkel), 14
MOURANT, A. E.: A coincidence (twins: dextrocardia), 705
— (and R. R. RACE). Rh factor and mental deficiency, 194
MOWLEM, Rainsford: Soft-tissue defects in limbs, 23
MUIR, E.: Therapeutic effect of induced jaundice, 782
MULDAVIN, LEON F.: Operation for varicose veins, 816
MULKERN, P. D.: Domiciliary midwifery and the family doctor, 365
MULLER, F.: Glandular fever with neutropenia, 702
— G. M.: Fractures of internal malleolus, 320 (O)
Müller, Otfried, death of, 409
Mumps: Ten cases of meningo-encephalitis in 165 cases of mumps (C. L. Steinberg), 21—Blood diastase values in a series of 89 cases of mumps (S. Zelman), 425—Mumps and mumps orchitis (S. Cundel and others), 767
MURRAY, Farquhar: Surgical emergencies in dogs, 832
— J. R.: Industry and psychiatric research, 265
— P. D. F.: Role of vitamin C in healing wounds, 96
Muscles: Influence of galvanic stimulation on muscle atrophy resulting from denervation (E. C. S. Jackson and H. J. Seddon), 485 (O)—Changes in human voluntary muscle in denervation and reinnervation (R. E. M. Bowden), 487 (O); correspondence, 622, 745, 898—Tenderness of, 556
MUSGROVE, A. Hugh: Anaesthetic risks, 897
Myiasis, human creeping: report of a case (R. G. Turner), 11 (O); correspondence, 135
MYRDAL, Alva: *Nation and Family* (leading article on), 258
Myxoedema induced by thiouracil (C. Allan Birch), 806

N

Naevus, capillary, 555
NAFTALIN, J. M. (and A. S. BOOKLESS): Typhoid fever complicated by benign tertian malaria, 804 (O)
NAGLE, J. (and T. F. J. RYAN): Small-bowel obstruction due to dried fruit, 426
Nails: Splitting of nail edge, 172
NAISH, Nora: Poisoning by accidental drinking of trichlorethylene, 367
Narcolepsy as neurosis (annotation), 20
Narcotics: The anti-narcotic campaign in Egypt (annotation), 612
Nash, Capt. George Peter, obituary notice of, 826
Nasopharynx, malignant tumours of (leading article), 324
National Health Service: Fundamental principles of the medical profession, 833; statement by Minister of Health on compensation in respect of medical practices, 834; statement by Secretary of Negotiating Committee, 834; the freedom of the profession (leading article), 851; the Minister's first steps (leading article), 851—The proposed N.H.S., 936—"A fundamental principle," 936
NAYLOR, Arthur: *Fractures and Orthopaedic Surgery for Nurses and Masseuses*, 187
Nearthrosis of shaft of humerus for amputations round elbow-joint (Leon Gillis), 686 (O)
Needles, syringe, types of, 204
NEGUS, V. E.: Evolution of speech organs, 25
NEIL, J. F.: Apparatus for treating bed-sores, 390
NEILSON, D. F. A.: Anaesthesia in threatened obstruction of air passage, 512
NEISSER, Albert: *On Modern Syphilotherapy. With Particular Reference to Salvarsan* (translated by Isabelle von Sazenhofen Wartenberg; biography and bibliography by F. T. Gardner), 463
NELSON, H.: Housing and health, 395 (O); correspondence, 508, 585
— Capt. Jean Cunison, death of, in India, 335
— W. H.: Ptyalism in pregnancy, 414
Nerve injuries in children (H. S. Souttar), 349 (O); correspondence, 473, 545, 627
Nervous reaction after bombing, 483
NESBITT, S. (and others): Case of Kaposi's disease involving thyroid gland and brain, 265
NESFIELD, John: Alien doctors, 478
Netherlands: Diphtheria incidence, 614
NEUBAUER, G.: 36 cases of cardiac complications among 602 cases of scarlet fever, 780
NEUBERGER, A. (and others): Nutritional macrocytic anaemia, 550; correction, 586
Neuralgia, supraorbital, 831
Neurasthenia: Neurasthenic states (book review), 322
Neuritis: After typhus, 519—"Acroparaesthesia" and so-called "neuritis" of hands and arms in women: their probable relation to brachial plexus pressure by normal first ribs (F. M. R. Walshe), 596 (O); correspondence, 701, 746, 820
—— sciatic (J. MacD. Holmes and B. R. Sworn), 350 (O); correspondence, 440, 544, 582, 701, 703, 784
Neurologist and neurosurgeon, 364, 473
Neurology: Book reviews, 121, 157, 257—Neurological training of the future (annotation), 292; correspondence, 364—Neurological complications in tropical macrocytic anaemia (D. W. Degazon), 461—Neurological complications of infective hepatitis (J. F. Stokes and others), 642 (O)—Diagnosis of nervous diseases (book notes), 850
Neuropschiatric Diseases, Symposium on, 924
Neuropsychiatry, review of book on, 497
Neurosis: Narcolepsy as (annotation), 20—A study among repatriated P.O.W.s (W. H. Whiles), 697 (O)
—— war. *See* War
Neutropenia, glandular fever with (Gerald Slot and F. D. Hart), 495 (O); correspondence, 702, 743, 896
Newborn. *See* Infants
Newfoundland, nutrition in (leading article), 124
Newspaper publicity, 137
NEWTON, Robert: Arterial thrombosis after ectopic pregnancy, 438
NIEMANN, J. W.: Humanitarianism and the European situation, 794
Night-blindness. See Ophthalmology
NIGHTINGALE, H. J.: A note on fat embolism, 531 (O)
Ningen, William, death of, 788
NIXON, W. C. W.: Medical future of the Colonies, 859
Nobel Prize for Medicine: Joint award, 612
NOEL-JACKSON, J.: Apparatus to elevate a fracture case for application of plaster, 16; correspondence, 232—Emergency treatment of fractured femur, 299
NORMAN, T.: Climate and civilization, 404
NORRIS, C. T.: Car without foot pedals, 872
Northern Ireland: Central tuberculosis scheme for, 363—Registrar-General's quarterly returns, 170, 590—Ulster medical war record, 855
Norway: Diphtheria incidence 614—Journal of the Medical Association "out of bondage" (annotation), 655

Notes, Letters, Answers, etc.:
Abdomen, doubtful penetrating wound of, 74
Achlorhydria and dental decay, 307
Acidaemia in gas gangrene, 449
Acupuncture, 34, 144
Adder bites, 35, 242
Adrenaline, intravenous, 73, 342
Alcoholism, 633—Road accidents while "under the influence," 870
Allergy: To alkaloids, 35—To fish in an asthmatic, 108—Diphtheria inoculation of allergic subject, 141—Sulphonamide, 633—Allergic diseases in a family, 753—"Leucopenic index," 793
Alphabetical pride, 484
Anamnestic reaction, 35
Anatomical nomenclature, 414
"Another melancholy example," 107
Antepartum haemorrhage, 72
Anti-gas ointment No. 2, 412
A.P.T. injection, nodule at site of, 908
Arthritis: T.A.B. treatment, 71—Sodium bismuthyl tartrate for, 106—Sudeck's, 908
Artificial respiration, 272, 520
Ascaris lumbricoides, 107
Asthma: Diphtheria immunization in asthmatic child, 171—Treatment of, 171—Iodine for, 340—After pneumonia, 374—Treatment of bronchial asthma, 412
"Atomic pregnancy," 342
Bacillus proteus infection of prostate, 449
Bart's in the war, 592
Bed-sores, 675
Bell's palsy, 714—Early treatment of, 556
Bibliophils, question for, 872
Blood examination, modern methods of, 272
—— pressure, low, 449, 518
—— tests for non-paternity, 871
Boils, vulval and pubic, 34, 107
Breast-feeding, 592
Bronchiectasis, bilateral, 271
Bronzing under sun-lamps, 105
Bruising and rheumatism, 375, 520
B.S.R.: Significance of, 307—Device for filling tubes, 308
Bursa: On knee, 713—Unsightly, 754
Butter and cheese, safety of, 676
Cancer: Drug treatment of, 271—Primary in accessory sinus, 308—And the blood, 449
Car without foot pedals, 450, 520, 872
Carbarsone, 240
Carbon tetrachloride, 591
Case for diagnosis, 950
Caudal analgesia, apparatus for, 36
Cerebral diplegia, 411

Notes, Letters, Answers, etc. (*continued*):
Chilblains, nicotinic acid for, 633
Child, the "highly strung," 909
Children's hospitals, visiting at, 242
Chloroform anaesthesia, 144
Cholecystitis: Diet and treatment, 712
Climacteric, 307
Colloidal gold (Lange) reaction, 754
Colostomy for cancer of rectum, 141
Constriction ring, 414
Contraceptive methods, 203
Corn in Egypt, 950
Corrections, 242, 272, 308, 376, 556, 592, 676, 714, 754, 832, 872, 910, 950
Cough, symptomatic treatment of, 909
Cramps, nocturnal, 106, 240, 342, 414
Craving, physiology and psychology of, 36, 107
Culex molestus, bite of, 675
D.D.T.: Action of, 35—For pediculosis, 106
Deaf-mutism, causes of, 676
Death: "He died peacefully . . .," 712—Test for drowning, 830—Repeated neonatal deaths, 871
Dermatitis: Industrial, 34—Of navel, 240, 342—Of palms, 483—Willow contact, 871
Diabetes: And epilepsy after meningitis, 341—Synthalin in, 871
"Difficult eaters," 712
Digestive disorders and swallowed sputum, 341, 556
Diphtheria: "Boosting" dose in immunization, 519—Prophylaxis, 675—Discharge swabs in, 753, 870—Diplopia, ocular, 713—Enemas in, 794—Immunization, 830
Disclaimer, 342, 376, 520, 592.
"Doctor" or "medical practitioner"? 242—A missing doctor, 754
Doctors' expectation of life, 171
—— and the social trend, 483
Dogs, surgical emergencies in, 832
Drugs: Value of a drug, 142—Dispensing Schedule 4 drugs, 412—Names of, 714
Dry rot, 831.
Dysentery, incidence of types of, 752
Dysmenorrhoea in middle age, 450
Eclampsia, treatment of, 556
Ectopia lentis, 72
Eczema, intractable, treatment of, 36
Electro-encephalogram, thought and, 908
Emoluments, undervalued, 872
Emulsifying bases, 204
Endometrioma in small intestine, 246
English qualifications in Canada and U.S.A., 484
Epilepsy and menstruation, 143
Ergot and abortion, 144
Fate of a threepenny bit, 143
Fatigue and depression, 831
Fear of heights, 375
Fish-bone in tonsil simulating neoplasm, 592
"Flat feet" in infants, 71
Fleas in the laundry, 792
Fluorine in toothpaste, 144
Fox-Fordyce disease, 171, 242
Fractured femur in a child, 375
Frigidity in a woman, 172
Fröhlich's syndrome, 591
Furunculosis, 830
Gastric HCl, neutralizing, 556
Glycosuria, renal, 35
Gonorrhoea, continued frequency after, 105
Grenfell Mission, in aid of, 634
Gymnastics for young children, 555
Haematoma after hydrocele operation, 71
Hallux valgus, 108
Hay-fever, 73
Headache, post-traumatic, treatment of, 272
Heart: Systoles, premature, 34—Apex beat, 271—Paroxysmal auricular fibrillation, 412, 871—Extrasystoles, 483—Posture in heart disease, 949
Heartburn and cholecystitis, 412
Hepatitis mortality rates, 203
Hepato-renal syndrome, 830
Heredity: In cleft palate, hare-lip, and spina bifida, 634—Inheritance of diaphysial aclasis, 793—Of Werdnig-Hoffman disease, 949
Herpes zoster: And varicella, 74, 714—Pituitary extract for, 171
Hiccup in infancy, 240
Hirsutism: Treatment of, 34—Bleaching for, 106
Holiday camps, permanent, for children, 910
Hospitals' Day, 414
Housemaid-receptionist and unemployment insurance, 376
Humanitarianism and the European situation, 794
Hydronephrosis and calculus formation, 341
Hygiene in sanatoria, 272
"Hyperbaric" and "hypobaric," 450
Hyperhidrosis of palms, 203
Ichthyosis, 713, 832
Ileus, paralytic, morphine prophylaxis of, 950
Immunity after B.C.G. vaccination, 272
Income tax, 36, 73, 107, 142, 241, 272, 308, 341, 376, 413, 483, 520, 592, 714, 794, 832, 871, 909, 949. For details see general index
Incontinence in the elderly, 792
Infertility, 634—Relative, in a female, 204
Injury after mine explosion, 106
Insulin injections, fat atrophy and, 633, 950
Intestinal antiseptics, 142
—— obstruction in newborn baby, 414
Iodine, Talbot's, 105
Iodochlorhydroxyquinoline, 413
Iraq, conditions in, 413
Iron and thrombosis, 634
Italy, journals and books for, 36, 832
Knyveton's "Diary of a Surgeon," 910

Notes, Letters, Answers, etc. (*continued*):
Lanette wax SX, 449
Language, acquisition of, by infants, 204
Lead palsy, 107
Lice and the G.P., 272
Little's disease, 634
Liver extracts, 482, 714, 794, 910—Intramuscular injection of, 948
Longevity, 950
Lumbar puncture in infants, 482
Lupus vulgaris, 792
Maladjusted children, boarding school for, 634
Marriage: And V.D., 411—Intermarriage of white and black, 591
Mastitis and breast-feeding, 340
Medical women, active practice of, 242
Menalyl and cardiac failure, 308
Ménière's disease, 412
Menstruation: Menopausal flushes, treatment of, 35—Profuse periods in a young girl, 374—Instruction about, 483
Migraine, carbachol for, 754
Milk: How is milk dried? 35—Children and dried milk, 72—Safe milk for children, 73—tuberculin-tested, 908
Miller-Abbott tube, 754
Misnomer, 450
Muscles, tenderness of, 556
Naevus, capillary, 555
Nails: Splitting of nail edge, 171
Nationality, a question of, 832
Needle, eyeless, 74, 242
Nephritis, chronic interstitial, diet in, 909
Nervous reaction after bombing, 483
Neuralgia, supraorbital, 831
Neuritis after typhus, 519
Neurosyphilis, control of, 870
Newborn, reviving the, 144
Nurses, shortage of, 242
Occipito-posterior presentations, persistent, 143
Oestrogens, oral or injected, 830
Oil-in-water and water-in-oil, 374
Ophthalmia neonatorum, 411
Osgood-Schlatter disease, 675
Ozone in the factory, 520
Pain in ulnar nerve, 449
Pamaquin, in benign tertian malaria, 482
Paraldehyde, sterilizing, 143
Parathyroids and calcium, 141
Paronychia of toe, 203, 342
Parotitis, chronic recurrent, 792
Pasteur Institute during the occupation, 676
Patulin *et al.*, 143
Pelvis, "frozen," 794
Penicillin: For acne vulgaris, 73—And other drugs, 74—Inhalation, 203—In ulcerative colitis, 240—And virus infections, 483—In meningitis, 753—Keeping properties, 793
Pessary, Smith-Hodge, fitting the, 141
Phthalates, effectiveness of, 240
Phytic acid and calcium deficiency, 832
Piling Pelion upon Ossa, 204
Poisonous fish, 374
Polish doctors, books for, 676
Populations, future of, 413
Pregnancy: And white-leg, 71—After subtotal hysterectomy, 105—After amoebic liver abscess, 106—After perineal operations, 108—And diabetes, 340—Diminished vaginal secretion after, 412—Albuminuria in, 483—After thigh amputation, 518—Pneumoperitoneum in, 520—Terminating, 592—Exercises during, 712—Air embolism in, 793
Prolapsus ani in a child, 105, 242
Prostates, enlarged, weight of, 908
Prostatitis, chronic, 792
Protein, first-class, 519
Pruritus and glycosuria, 556, 872
Psoriasis, 412
Psychopupillary reflex, 520
Ptyalism of pregnancy, 108, 414
Pulse rate, variations in, 555
Purpura, 271—After sedormid, 518
Putrefaction of meat, poultry, and game, 555—Effects of putrefied meat, 831
Pyretotherapy for G.P.I., 308
Radiography: Explaining mass radiography to workers, 450—Examination questions for radiographers, 832
Resuscitation: After drowning, 144, 241—Across a barrel, 342
Retinitis pigmentosa, 752
Rheumatism, calcium *o*-iodoxybenzoate in, 753
Rorschach test, 752
Salivary-gland tumour of upper lip, 872
Salivation, 870
Salty taste in mouth, 713
Scabies, benzyl benzoate for, 948
Schick test and A.P.T., 374
Schistosomes, adult, destruction of, 910
Schistosomiasis, 591
Sclerosing solution for inguinal hernia, 204
Sclerosis, disseminated, and trauma, 712
Sculling for one-armed men, 144
Sensitivity, 376
Sex hormones to control uterine bleeding, 341
Shock: And haematemesis, 141—Foot-up position in, 340
Skin of hands, infection of, 450
Sleep-walking, 108, 241, 342, 414
Smallpox vaccination, 172
Snake venom for epilepsy, 412
Soapless shampoos, 908
Sodium amytal, 375
"Soma" and "psyche," 675
Speech training, 172

Notes, Letters, Answers, etc. (*continued*):
Spinal analgesia, persistent pain after, 307
Splendectomy, prognosis after, 592
Spraying enclosed spaces, 72, 172
Sprouting legumes, 676
Sterilization, the law and, 753
Sterilizing needles, 36
Stilboestrol: For suppressing lactation, 341—For premature infants, 374—For cancer, 414
Sting-ray poison, 376
"Struck off the Register," 71
Styloid process, elongated, causing symptoms in throat, 634
Subcutaneous injections, rubbing the skin after, 831
Sugar: Demerara *v.* white, 832
Suggestions and suggestive questions, 872
Sulphonamides: Local therapy, 144—For *B. coli* infections, 171
Suture materials and their sterilization, 72
Swaddling and thumb-sucking, 74
Swallowed button, 141
Sweats, generalized, 519
Synovitis and synovectomy, 34
Syphilis: Treatment of, 908—Cure of, 949
Syringe needles, types of, 204
Teeth, dead, infection from, 714
Testosterone for angina pectoris, 171
Thiouracil for Graves's disease, 792
Threadworms: Maturing of, 676—Methylene blue for, 713
Tinnitus, relief of, 144
Tobacco smoking and health, 342
Tonsils, buried, removal of, 34
Toothbrushes and good teeth, 108
Tourniquet, 413
Trasentin, 675
Trigger finger and snap finger, 106, 241
Tryparsamide for G.P.I., 374
Tubercle bacilli, survival of, 34
Tuberculosis: Climate and, 142—Tuberculous persons in prison, 242—Management and treatment of T.B. and V.D., 308—Death rate in Wales, 484—Pneumoperitoneum for early apical Tb., 793—Autogenous vaccine in, 831—Calcium in, 871—And diabetes, 909—Renal, 950
Ulcer, gastric, and femoral thrombosis, 72—peptic: Treatment of, 308—Histidine and, 340
Unlucky shot, 376
Urethritis, non-specific, 713
Urine: Alkaline tide, 241
Urticaria: And fresh-water bathing, 307—Exertion, 753
U.S.A.: Sale of Government publications, 950
Vaccination: And diphtheria immunization, 340—Methods of, 712—Immediate reaction, 871
Varicose ulcers, 482
—— veins: In elderly, 413—Order of injecting, 519
Vascular collapse and anuria, 373
Venereology, 414, 556, 634, 754
Viper antivenenes, 172
Virginity, signs of, 908
Vision, binocular and monocular, 141, 520
Vitamin B: In general therapy, 555—In dried yeast, 675
—— Dosage: Concentrated, 374—Large dosage, 484
—— K, 340
War-blinded men, 754
Warts: Plantar, injection for, 143—Multiple, 271—Podophyllin for, 592, 910
Wasp sting, unusual complication of, 450
Water: Purifying supplies, 793
Weight, increasing, 591
Wellcome Medical Diary, 450, 872
What's in a name?, 520
Whoop after vaccine, 449
Women in labour, 272
Worms in cod, 519
X-ray workers, protection of, 203
X rays and prostatic hypertrophy, 105, 241

NOVA ET VETERA:
Academy of Medicine, 228
Bill, Thomas, M.D., physician to Henry VIII and Edward VI, 228
Charcot: A portrait, 228
Early Jewish contributions to medicine, 930
Medical poets, 698
Prout, William, philosopher-physician, 437
Rickets, the first treatise on, 931
Rush, Benjamin, 1745-1813, 893
Syphilis, history of, 658

Nuffield Foundation: Promotion of dental teaching and research, 480

NURSING:
Cloistered nurse, 29
Colonies: Training nurses for the Colonies (Rushcliffe Committee report), 506
Education of nurses, 66
Examinations for nurses, 29
Hospital nurses: A new deal (leading article), 733
Letters to a Nurse, 428
London: L.C.C. recruitment, 892
Medicine: A summary for nurses, 850
Mental: Improved rates of pay recommended in Scotland, 690—Government regulations, 828—Report on, 945
Mental patients: *The Attendant's Guide* (book notes on), 607
Ministry of Health nursing staff, 32
"Nurse," use of the title, 130
Nursing orderlies, 752
Salaries, 790

NURSING (*continued*):
Shortage of nurses, 242, 631, 709, 865, 886
Title "nurse," 806
Training: Medical views on nurses' training, 513—Concessions to wartime nurses, 766
Tuberculosis: Aids for nurses (book notes), 390—Young nurses in tuberculosis wards, 628—Shortage of, 737
Working conditions, 553

Nutrition: In Newfoundland (leading article), 124—Manual on (H.M.S.O.), 158—The science of (book review), 219—Nutritive value of foods (annotation), 293—Nutritional deficiencies in Hong Kong before the Japanese invasion (Lydia Fehily), 468 (O)—Surveys in Italy (annotation), 575—Bread and (H. of Lords debate), 630—Two booklets on (book review), 807—A little of what you fancy (annotation), 810—In Vienna in September, 1945 (Magnus Pyke), 839 (O); leading article, 852

O

Obituary:
Abrami, Pierre, 200
Achard, Emile Charles, 139
Aldridge, Capt. Bernard Henry Mooring (previously reported P.O.W.), 906
Alford, Cyril Wolrige, 787
Allkins, W. J., 102
Alurralde, Mariano, 304
Anderson, David Irving, 238
Arloing, Fernard, 447
Aschaffenburg, Gustav, 409
Ashton, Col. Basil Cedric, 32
Aubrey, Thomas, 905
Ayarraray, Lucas, 409
Azevid, Manoel Francisco de, jun., 304
Babington, Lieut.-Col. Gilbert Cleary, 101
Bacha, Ardeshir Pestonji, 336
Balfour, Margaret, 866, 904
Ball, Sir William Girling, 138, 200
Barclay-Smith, Edward, 67
Bark, E. Gilbert, 945
Barlow, Thomas William Naylor, 906
Barrett, Lady (née Florence Elizabeth Perry), 237
Baum, Lieut. Gerard, 335
Beale, John Foster, 787
Beattie, Thomas, 67
Beatty, Martyn Cecil, 68
Biddle, Eric, 336, 371
Black, Norman, 200
Blyth, Surg. Lieut. John Murdoch (missing, presumed killed), 371
Bowyer, J. H., 660
Branch, Stanley, 671
Broughton, Alfred G. S., 31
Brown, Alexander, 304, 446
—— Capt. Alexander, 335
—— Kenneth Stocks, 867
—— Robert Cunyngham, 550
Bruce, Lewis Campbell, 903
Buckley, James Charles, 905
Burgess, Capt. Denis John, 552
Buzzard, Sir Edward Farquhar, 943
Cabot, Hugh, 788
Cannon, Walter Bradford, 586
Carrell, G. N. P., 337
Clendening, Logan, 409
Clewer, Major-Gen. Donald, 946
Clifton, Major Vivian Roy, 552
Connell, Arthur M., 866
Corpas, Juan N., 788
Covisa, Juan Sanchez, 200
Cramer, William, 304
Cranna, Robert, 31
Crone, John Smyth, 788
Crow, Douglas Arthur, 747
Danby, Alfred Beuthin, 944
Daniels, Capt. Kenneth, 788, 826
Darlow, Francis, 102
Davies, David, 68
—— Surg. Cmdr. John, 304, 370
Debrez, L., 788
De Mowbray, Ralph Marsh, 587
Deverell, Capt. Henry Alexander, 788
Diggle, Walker Saxon, 825
Dieudonné, Adolf, 409
Diver, Capt. John, 672
Donald, Samuel John Watt, 337
Donaldson, Dr. (Malacca Medical Board), 660
Duff, Donald, 825
Dunn, Capt. James Raymond, 672
Durham, Herbert Edward, 708
Edmunds, Arthur, 866
Edsall, David Linn, 788
Eustace, George Wallace, 68
Evans, Lieut. John, 200
Farrell, Major John Andrew, 132
Fitch, Charles Dennis, 238
Forbes, Surg. Lieut. Ian Gordon, 447
Foresti, Carlos Brito, 304
French, Major John, 710
Frick, Karl, 447
Froehlich, Dr., 788
Galloway, Sir David James, 825
Gilkes, Lieut.-Col. Humphrey Arthur, 479
Gillespie, Robert Dick, 670, 708, 787, 826
Given, Flight Lieut. Hugh Macivor, 826
Good, Thomas Saxty, 747
Gordon, Robert, 905
Gosset, Antonin, 447
Greene, Major Alfred Charles 335
Hall, George, 587

Obituary (*continued*):
Hamer, Capt. John Michael, 335
Harper, Frances Margaret, 944
Harris, Capt. St. George Eyre, 66
Haworth, James, 446
Heekes, John William, 867
Hempson, Geoffrey, 30
Hendry, George A. Maxwell, 905
— James, 408
Higson, Richard Woodward, 787
Hughes, Ernest William Shaw, 906
Hussein, Ghulam, 788
Irvine, D. F., 660
Jacques, Evelyn B. (née Salter), 867
Jenkins, W. David, 867
Jones, Charles Edward Mellersh, 268
— David Johnston, 587, 944
— Flight Lieut. Samuel Lloyd, 335
— Sir Thomas, 237
Joseph, Capt. Jacob Hyman, 552
Kayne, G. Gregory, 101
Kidson, Major Campbell William, 552
Kilgour, Major Hugh McPherson (previously missing), 32
Killen, William Marcus, 516
Kindberg, Michel Léon, 409
Kirkpatrick, Surg. Lieut. Ross McFaul (missing, presumed killed), 238
Kruckmann, Emil, 447
Lambah, Vishwa Mitra, 30
Lamont, Lieut.-Col. John Charles, 32
Lancashire, George Herbert, 788
Lancaster, Ernest Le Cronier, 587
Lane, Lieut.-Col. William Byam, 826
Laurie, Alan R., 101
Lawrie, E. S., 660
Lawson, H. J., 660
Lee, Miss E. 371
Lennane, Gerald Quin, 586
Lewer, R. S. P., 748
Lindeman, Col. Sidney John Liddon, 906
Logan, W. R., 660
Louis, Capt. Percy (previously missing), 672
Lowe, Arthur Hamilton, 370
McClelland, Hugh Harper, 944
McCracken, James Smith, 408
McDougall, William, 587
McFarlan, Patrick Frederick, 200
McNamara, Capt. Robert William, 826
MacPhee, Burgess, 867
Macrae-Gibson, Angus Charles, 335
Marshall, Squad. Ldr. Robert William Stanley (missing), 66
Martin, Surg. Lieut.-Cmdr. Gerald Noel, 238
Matheson, John, 480
Matthew, Arthur W., 102, 168
Moir, John Hay, 30
— John L., 337
Moran, Herbert Michael, 904
Morris, Edward, 168
Mottram, James Cecil, 587
Müller, Otfried, 409
Nash, Capt. George Peter, 826
Nelson, Capt. Jean Cunison, 335
Ningen, William, 788
Nolan, Surg. Lieut. Colin, 710
Norris, Dr. (Kandang Kerbau Hospital, Singapore), 660
Ozanne, Ronald Cathcart, 446
Palacios, Francisco Murillo, 200
Panton, John Allison, 68
Parry, Thomas Wilson, 515
Parsons, Ernest Alsager, 906
Pezze, Cesare, 409
Phillips, Major C. E. S., 102
— H. J., 68
Porter, William, 237
Powell, James, 370
Puddicombe, Thomas Phare, 586
Pugh, William Thomas Gordon, 168
Quin, Bernard Haselden, 447
Rayner, David Charles, 629
Reichelderfer, Luther, 304
Reid, Adiel Elad Hazael, 826
Richmond, Archibald Hamilton Douglas, 788
Rickards, Joseph, 787
Rigby, Rupert Alan Clayton, 866
Robson, Capt. Albert, 409
Rogers, Lieut. Geoffrey (previously missing), 826
Rutherford, Henry Ernest, 906
Sadler, Ernest Alfred, 708
Salé, Roberto, 788
Salter, Alfred, 337
Seiler, Fritz, 409
Sherren, James, 670
Smart, H. Douglas, 371
Smith, Richard Travers, 515
Stanley, C. A., 660
Staunton, Major Harry William Gilbert, 826
Stephens, George Arbour, 904
Stevenson, Surg. Cmdr. T. C. (missing), 672
— W. D. H., 786
Taylor, Frederic Ryott Percival, 748
Thomas, William, 409
Todd, David F., 788
Tough, Frederick William Kerr, 671
Tresawna, William Samson, 370
Troup, Arthur George, 102
— James Macdonald, 587
Trumpp, Joseph, 409
Tucker, Lieut.-Col. Ernest Frederick Gordon, 788
Turner, William Aldren, 200
Tyrrell, Edgar James, 68
Valdervehr, Paul H., 788
Veraguth, Otto, 409
Von Noorden, Carl, 409

Obituary (*continued*):
Walker, Arthur, 370
Ward, Ernest, 479
Watkins, Harold Ernest, 409
Webb, Sir Arthur Lisle Ambrose, 629
White, Major John, 672
— Joseph, 337
Wigram, Edmund H. L., 944
Wilson, James Thomas, 370
Wood, Arthur Murray, 337
— David Frew, 335
— John, 551
Woodburn, William Young 788
Worthington, Robert Alfred, 268
Yelf, Robert Edward Burnet, 551
Young, Ernest Eric, 707

OBSTETRICS:
Abortion, ergot and, 144
Anaesthesia: Trichlorethylene in midwifery, 98—Trilene in midwifery, 331
Analgesia: Gas-and-air, training of midwives in, 32—Heavy nupercaine spinal, in operative obstetrics; with report on 394 cases (Louis Resnick), 722 (O); correspondence, 818, 898, 939
Ante-partum haemorrhage, 72
Book reviews, 257, 533, 886
Breast abscess, incidence of, 744, 862
Caesarean section: Waters's operation (C. McIntosh Marshall), 438
Constriction ring, 414
Eclampsia, treatment of, 556
Labour: Women in labour, 196, 272, 331, 443, 513
Lactation, stilboestrol for suppressing, 341
Mastitis: Puerperal and lactational, 28—And breast-feeding, 340—Lactational, value of supplements of vitamin C in preventing (A. A. Fulton), 488 (O); correspondence, 744
Midwifery: Domiciliary, and the family doctor (David Dale Logan and Eneas K. MacKenzie), 294 (O); correspondence, 365, 401, 441—Supply of midwives (annotation), 929—Sulphonamide therapy by the midwife, 939
Placenta praevia (R.S.M.), 779—Midwife's responsibility in, 898
Presentations, persistent occipito-posterior, management of, 143
Relaxin (annotation), 576
Strangulation of foetal intestine before term (A. H. Esmat), 690
Uterus, acute inversion of (J. V. O'Sullivan), 282 (O); correspondence, 366, 475, 626, 700, 783, 819

Obstruction, intestinal: Unusual termination of, due to gall-stone (A. J. d'Abreu), 388—Acute (book review), 389—Unusual cause of, in newborn baby, 414—Small-bowel obstruction due to dried fruit (T. F. J. Ryan and J. Nagle), 426—Acute, due to dried fruit (G. C. Dorling), 426
Occupational therapy department at Maida Vale Hospital, 64
O'CONNELL, J. E.: Intervertebral disk lesions, 24
ODGERS, P. N. B.: *A Class Book of Practical Embryology for Medical Students*, 691
O'DONOVAN, D.: The filigree operation, 405
Oedema: A clinical description of famine oedema, 330—Observations on oedema occurring during course of macrocytic anaemia (E. G. Holmes), 561 (O); correspondence, 782
Oesophagus: Foreign bodies in the bronchi and oesophagus in children (B. M. L. Abercromby), 647 (O)
Oestrogens, oral or injected, 830
OGILVIE, K. R.: Ludwig's angina, 622; correction, 676
— W. H.: Housing the returned Consultant, 30
— — (and others): Arterial aneurysm following injury to iliac vessels: report of 2 cases, with a commentary on large transfusions, 451 (O)
Ointment, anti-gas No. 2, 412
OLIVER, L. C.: Stethoscope *versus* x rays, 857
— Percy Lane, a pioneer in blood transfusion: Memorial Fund, 506
Olmsted, J. M. D.: *François Magendie. Pioneer in Experimental Physiology and Scientific Medicine in XIX Century France*, 257
O'MEARA, D. J. P.: Volvulus of small intestine, 626
— Hubert: Scalenus anticus syndrome, 902
Omentum, torsion of (M. N. Khanna), 729

OPHTHALMOLOGY:
Bibliography of Visual Literature, 1939-44, 428
Blindness: Rehabilitation in Greece, 239—Statistics, 263—Helping the blind to see: new guiding devices, 264—The incidence and causes of, in the British Commonwealth (Arnold Sorsby), 557 (O)—Totally blind war casualties, 751, 754—Following haematemesis (James Black), 920 (O)
Burns of the eye, grafting for (annotation), 190
Diplopia, ocular, 713
Ectopia lentis, 72
Eye diseases in the East, 739
Eyelids, use of the cautery in plastic operations on (D. Simpson), 424 (O)
Faculty of Ophthalmologists, 471
Industrial: Department set up at Royal Eye Hospital, London, 518
Keratoconjunctivitis: Observation on cases seen in military hospitals (R. J. Buxton), 847 (O)
Night-blindness: A trick test to detect "malingerers" (E. Epstein and S. A. Hugh Lesser), 644 (O)

OPHTHALMOLOGY (*continued*):
Penicillin in (R.S.M.), 542
Psychopupillary reflex, 520
Removal of the wrong eye, 300, 367
Retinitis, pigmentosa, inheritance of, 753
Sixth-nerve paralysis after spinal analgesia (W. A. Fairclough), 801 (O)
Vision: Binocular and monocular, 141, 520—Diminution of, in returned prisoners of war, 400
Wolfe graft, device for fixation of (I. C. Michaelson), 49

Opium: Permanent Central Opium Board: Meeting and Press Conference (annotation), 261
O'RAHILLY, R.: Anatomical nomenclature, 520
Order, Venerable, of the Hospital of St. John of Jerusalem: Promotions and appointments, 58.
O'REILLY, J. N.: Heated carrier for transporting premature babies, 731
Organic analysis (book review), 428
ORR, John: Hypersensitivity to quinine and mepacrine, 604
— Sir John Boyd, elected Director-General of Food and Agriculture, Organization of the United Nations, 655
Orthopaedics: For auxiliaries (book review), 187—"Orthopaedic" rehabilitation, 225—Perspex in (John T. Scales and Woolf Herschell), 423 (O); correspondence, 512, 585
Orthoptists, Register of, 257
Osgood-Schlatter's disease, 675
OSMOND, T. E.: Venereology, 556
Osteomyelitis of skull due to *Salmonella typhi* (J. M. Lever and G. B. Barker), 459 (O)
Osteopathy and further education grants, 673
O'SULLIVAN, J. V.: Acute inversion of uterus, 282 (O); correspondence, 366, 475, 626, 700, 783, 819
— R. F.: Penicillin for massively infected tissues, 299

OTOLOGY:
Children, ear disease in (D. Ritchie Paterson), 761 (O)
Labyrinthine fistula symptom, an unusual case of (J. Lee), 47
Ménière's syndrome (annotation), 52; question answered, 412
Otosclerosis, fenestration for (leading article), 430; correspondence, 509, 543, 626
Otitis externa (J. F. Birrell), 80 (O)

Oto-rhino-laryngology, review of handbook on, 886
OTTLEY, Constance: Examinations for nurses, 29
OWEN, C. Glynne: Treatment of varicose ulcers, 937
— J. R. (and others): Neurological complications of infective hepatitis, 642 (O)
OWEN-FLOOD, A.: Sleep-walking, 241; correction, 308
Ozanne, Ronald Cathcart, obituary notice of, 446

P

PAGE, C. Max: Excision of patella, 166—Survey of fracture treatment (Bradshaw Lecture, R.C.S.), 835 (O)
— G. B.: Education of nurses, 66
— Irvine H. (and Arthur Curtis CORCORAN): *Arterial Hypertension. Its Diagnosis and Treatment*, 187
PAI, M. N.: Sleep-walking, 414
PAINTER, Charles F. (editor): *The 1944 Year Book of Industrial and Orthopedic Surgery*, 390
Palacios, Francisco Murillo, death of, 200
PALMER, W. H.: Sting-ray poison, 376
PALSER, J. E. J.: Viper antivenenes, 172
"Paludrine" (=M4888): Triumph against malaria (leading article), 653
Pancreas: External pancreatic secretion in man (leading article), 51—Observations on 22 cases of pancreatitis (W. M. Johnson and O. T. Davis), 420—Aetiology of pancreatic apoplexy (Judson T. Chesterman), 461
PANNETT, C. A.: Peptic ulcer, 739
Panton, John Allison, obituary notice of, 68
Pantothenate, salicylate and (annotation), 224
Paper for book publishers, 673
Paraldehyde, sterilizing, 143
Paraplegia, a case of, after cerebrospinal meningitis (H. Hilton Stewart), 319 (O)
Parasitology: Report of a case of human creeping myiasis due to infestation by *Hypoderma bovis* (R. G. Turner), 11 (O); correspondence, 135
Parathyroids and calcium, 141
Parental Responsibility (book review), 158
PARK, R. G.: Allergy to egg-prepared vaccines, 570
PARKER, Geoffrey E.: Bitterness, 548
PARKES, A. S.: Preservation of human spermatozoa at low temperatures, 212 (O)
PARKINSON, John: Rheumatic fever and heart disease (Harveian oration), 578
Parliament: Medical members of the new Parliament and medical candidates not elected, 164—Parliamentary Medical Group, 588

Parliament, Medical Notes in:
Alien doctors: Future of temporarily registered, 673—Permission to take new appointment, 945
Animal experiments, statistics of, 32
Army, M.O.s in, 673
Artificial limbs: Price control, 790
Association, British Medical: Protection of Practices Scheme, 305

Parliament, Medical Notes in (*continued*):
Atom: Britain and the, 589—Three Powers' statement on atomic energy, 790
Aviation medicine research, 945
B.L.A., medical officers in, 553
Blindness: Totally blind war casualties, 751
Blood tests in motorists, 827
Bread: And nutrition, 630—High extraction and wholemeal flour, 751
Call-up: And release, 673—Of doctors, 750—Short-service commissions and release, 750—And shortage of doctors, 945
Cancer: Statistics, 589—Early recognition, 945
Casualties: Empire and U.K. statistics, 868
Christian Science "nurses," 672
Coeliac disease, dried bananas for, 631
Cold, the common, the public and, 710
Committee on Atomic Energy, 305
—— Labour Medical, 305
—— Medical Personnel (Priority), 305
—— Parliamentary Medical, of the Labour Party, 588
—— on scientific man-power and resources, 828
—— Teviot, on Dentistry, 32
Corrections, 631
Demobilization: Release of doctors, 305, 709, 827, 945—Release of N. Ireland doctors, 553—Release of students, 589—Naval medical officers, 589—Medical call-up and release, 673—Navy, 673
Detention Barracks, Stakehill, 868
Diabetics, food for, 631
Diphtheria: Statistics, 32—Age incidence, 338—Publicity for immunization, 709—Immunization statistics, 710, 868
Disabled Persons (Employment) Act: Miners with silicosis or pneumoconiosis, 32
Doctors: Ratio to civilian population, 305—Shortage of, 673—Cars, 709, 945—Civilian doctors this winter, 709—Taxation of cars and petrol, 828—Professional subscriptions, 828—Purchase tax on cars, 868
Drugs, export of, 869
East Africa Command, doctors in, 868
Factories Act: Medical inspectors, 945
Far East, invaliding from the, 589
Foot-and-mouth disease from butchers' meat, 750
Germany: Food in British zone, 631—Health of British Forces in, 828
Hospitals: No. 30 General, 589—The Government and the, 709—Mental conditions in, 749
Housing statistics, 32
Infectious diseases, mortality from (England and Wales), 631
Insurance: National Insurance (Industrial Injuries) Bill, 32, 552—Health insurance benefit, 631
King's speech, 268
Leprosy in British Empire, 751
Liquid paraffin shortage, 790
Lymph, Government, 790
Malaya, vaccination and inoculation in, 946
Malta: Infant mortality, 673
Medical man-power: Distribution of, 588—British and alien, 750
—— members of new Parliament, 164
—— profession, negotiations with, 269
—— students' fees, 868
Midwives: Training in gas-and-air analgesia, 32, 751
Milk: Enforcement of standards, 338—T.T. milk in school, 828
National Health Service: New Government proposals, 305—Compensation for medical practices, 553—Experimental health centres, 553—Sale and purchase of practices, 868—Physiotherapists in N.H.S. Consultations, 868
Navy: Postgraduate courses for R.N. doctors, 827—The Navy's ratio, 827
Nurseries, "wartime," 790
Nurses: Ministry of Health nursing staff, 32—working conditions for, 553—Shortage of, 631, 709—Salaries, 790—In mental institutions, 828—Report on mental nursing, 945
Osteopathy and further education grants, 673
Paper for book publishers, 673
Parliamentary Medical Group, 305, 588
Penicillin: Supplies, 709—Formula of, 945
Pensions, Ministry of: Medical information disclosed by Medical Boards, 751
Pneumoconiosis: Compensation for, 790—Research into, 945
Psychoneurotic, the invalided, 710
Public assistance: Medical care, 710—Mental patients, 869
—— Health (Scotland) Bill, 790
Raynaud's disease and vibrating machines, 710
Rheumatic fever notification, 790
Rheumatism, research in, 790
Scholarships for medicine, 790
Sclerosis, disseminated, special hospital for, 790
Silicosis: In Rhodesian copper mines, 790—statistics, 946
Tin-miners, medical examination of, 710
Trinidad: Survey of local medical services, 32
Tuberculosis: Tuberculous persons in prison, 32—Allowances, 1944-5, 32—Treatment costs in ex-Service men, 338—Food for Tb. persons, 631—Treatment of Service patients, 631—Accommodation in sanatoria, 589—Beds in Scotland, 828—Milk for tuberculous, 868
Vaccination: And death certificates, 32—Public vaccinators, 945
Women medical students, 828
X-ray equipment, production of, 631

Paronychia: Of toe, 203, 342—Severe, treatment of, 299
Parotitis, chronic recurrent, 792
Parry, Thomas Wilson, obituary notice of, 515
Parsons, Ernest Alsager, obituary notice of, 906
PASSE, E. R. Garnett: Fenestration for otosclerosis, 509
Pasteur, medicine's debt to (leading article), 429
Patella, excision of, 62, 133, 165, 195, 543
PATERSON, A. Spencer (and F. T. FARMER): Electroconvulsive therapy apparatus, 99
—— Donald (and J. Forest SMITH): *Modern Methods of Feeding in Infancy and Childhood*, 8th ed., 427
—— D. Ritchie: Ear disease in children, 761 (O)
—— Lady: *The Family Woman and the Feminist*, 86

PATHOLOGY:
Acid-fast organisms in gastric resting juice (John Yates), 530 (O)
Chemical, teaching and practice of: Memorandum by the chemical pathologists of the London teaching hospitals, 93
Surgical, review of book on, 356
Textbooks of (book reviews), 691, 806

Patients: The patient in his setting (book review), 355—Telling the patient, 513, 581, 706
PATTERSON, S. W.: Colostomy, 230
Patulin, 143
PAYKOC, Z. V. (and others): Hypersensitivity to transfused blood, 83 (O); annotation, 360
PEARSE, Innes H.: *Observations on the Population Question*, 807
PEARSON, Bruce: Hypertension, 662
—— Jean L.: Examinations for nurses, 29
PEBERDY, G. R.: Acroparaesthesia, 820
Pediculosis corporis, D.D.T. for, 106
PEEL, J. H. (and A. H. GALLEY): Apparatus for caudal analgesia, 36
"Pelion upon Ossa," 204
Pellagra in a morphine addict (Charles Comerford and Brian H. Kirman), 44 (O); correspondence, 547, 705, 785
PEMBERTON, H. S. (and others): Thionracil in treatment of thyrotoxicosis, 343 (O)
—— W. B.: Doctors and the social trend, 302
PENDRED, Vaughan: Rehabilitation of fractured limbs, 475

PENICILLIN:
Acne vulgaris, 73
Actinomycosis successfully treated with: Report of 2 cases (A. J. C. Hamilton and H. J. R. Kirkpatrick), 728 (O)
Administration: By intramuscular infusion (E. C. Turton), 283 (O); correspondence, 400—An indwelling syringe for (H. F. Barnard), 498—A simple apparatus for (A. J. P. Graham), 768—By intramuscular drip (T. A. Grimson), 849
Agranulocytosis after sulphonamide sensitization: Penicillin therapy: Death from *Ps. pyocyanea* septicaemia (J. D. Cameron and J. R. Edge), 688 (O)
Amputations, reamputations, and penicillin (E. N. Callum), 599 (O)
Anthrax, human cutaneous, treated with (H. Stott), 120
Apparatus, a systemic (F. Ronald Edwards), 86; correspondence, 199
Bone and soft-tissue lesions (British Orthopaedic Association), 23
Colitis, ulcerative, 240
Control, need for, 367
Endocarditis, bacterial: Centres for treatment with penicillin, 133—Annotation on, 734
Excretion of, delaying (annotation), 292
Exhibition in Paris, 858
"Fastness" of staphylococci, haemolytic streptococci, and pneumococci to (E. W. Todd and others), 603 (O)
Formula of, 945
Influenza: The *in vitro* sensitivity of *H. influenzae* to penicillin, with special reference to meningeal strains of Pittman's type b (M. Gordon and K. Zinnemann), 795 (O)—Meningitis due to a penicillin- and sulphonamide-sensitive Pittman b strain of *H. influenzae*: Recovery (D. G. McIntosh and Constance F. Drysdale), 796 (O)
Inhalation, 203
International standard for, 579
Keeping properties, 793
Massively infected tissues, 299
Meningitis, 753
Mode of action (leading article), 464
Neurological complications in cerebrospinal meningitis treated with (A. R. Forrest), 805
Ocular therapeutics, 74
Ointments, sterile base, 140
Ophthalmology, penicillin in (R.S.M.), 542
Parenteral infection in infancy (E. C. Ross Couper), 876
Pastilles, 818
Pericarditis, purulent, local penicillin in (Marshall M. Gowland), 922
Production: Penicillin grown from a nutrient medium prepared from potato extract (J. O. Gavronsky), 82 (O)
Rat-bite fever due to cat-bite: satisfactory response to penicillin after failure of arsenotherapy (G. I. M. Swyer), 386 (O)
Rubber tubing and, 741
Staphylococcus pyogenes septicaemia treated with (G. I. M. Swyer), 532 (O)

PENICILLIN (*continued*):
Streptococcus: Haemolytic streptococcal thro... infections: their complications and sequ... with special reference to penicillin treatm... (P. Robinson), 213 (O)
Supplies, 709
Synergic action of penicillin and sulphathiazo... (J. W. Bigger), 621
Synthetic rubber, action on, 400, 474, 508, 62... 741
Syphilis, masking of, with penicillin, 133—Syphilitic reinfection after penicillin therapy, 3...
Therapy, review of book on, 462
Toxic reaction to (H. Jaslowitz), 767
Ulceration, chronic undermining, (Aubrey Le... cock), 765 (O); correspondence, 864
Vesicular eruption, 2 cases due to (J. H. Lam... 723
Vincent's angina: Treated with intramuscu... injections (B. M. Schwartz and P. L. Shall... berger and others), 382—41 cases treated wi... penicillin (H. E. Twining and others), 718
Virus infections, 483

PENMAN, A. Clark: Therapeutic effect of induc... jaundice, 864
Pentothal. *See* Anaesthesia
Pericarditis, purulent, local penicillin in (Marsha... M. Gowland), 922
PERKINS, Philip H.: Psychiatry in the Services, 7...
PERN, Sydney: Infection from dead teeth, 714
PERROTT, J. W.: The "stamping" of the Guard... 786
Perspex: In orthopaedics (John T. Scales a... Woolf Herschell), 423 (O); correspondence, 5... 585—Exhibition of adaptation to peacetime u... 621
Pessary, Smith-Hodge, fitting of, 141
PETCH, C. P.: Acute infective polyneuritis, 254 (...
PETERKIN, G. A. Grant: Sulphonamide rash... analysis of 500 cases seen in N. Africa and It... 1 (O)
PETHER, G. C.: The cloistered nurse, 29
Pezze, Cesare, death of, 409
Pharmaceutical Codex, British, 1934, Seventh Supp... ment. Additions and Amendments to Parts I a... III, with Cumulative Index, 850
Phenacetin, sulphaemoglobinaemia due to (... Lazarus), 565 (O)
PHILIP, W. Paton: Artificial pneumothorax re... 821
Phillips, Major Charles E. S., obituary notice o... 102
—— Leonard: Factors making for improv... results in placenta praevia, 779
—— Miles H.: Acute inversion of uterus, 366
PHILP, Howard L.: *A Psychologist Looks at Le...* 807
Phthalates, effectiveness of, 240
Physiology: Teaching of, 26, 100—Annual re... (book review), 186—The physiology of emo... (annotation), 191—Cinematograph films of re... tion physiology, 199—A pioneer French physi... gist: François Magendie (book review), 25... Applied (book review), 923
Physiotherapists and other medical auxiliaries, 4... —In N.H.S. Consultations, 868
Physiotherapy, review of book on, 462
Pickerill, H. P. and C. M.: Early treatment of ... palsy, 457 (O); correspondence, 556
PICKERING, G. W.: Peptic ulcers, 739
PICKWORTH, F. A.: The discharging lesion, 784
PIM, Sheila: *Getting Better*, 16
PINES, N.: Toxicity of magnesium, 475
PINEY, A: Terminological exactitude in ha... tology, 865—The flour in the bread, 940
PINNER, Max: *Pulmonary Tuberculosis in the Ad... Its Fundamental Aspects*, 849
Pituitary: Simmond's disease due to post-par... necrosis of anterior pituitary: Carcinoma ... Stomach (R. T. Cooke), 493 (O)—Stimulation ... light (annotation), 695; correspondence, 860
Plasma proteins, methods for determining: V... in a group of boys aged 14 to 15 (R. P. Cook ... others), 456 (O)
PLATT, B. S.: Relation of diet to incidence ... tropical ulcers, 96
—— Harry: Medical rehabilitation in hospital, ... Congenital dislocation of hip, 738; Orthopa... in medical education and in Regional Hos... Services, 738
PLAUT, G. (and others): Results of routine ins... gation for Rh factor at the N.W. London ... 273 (O); correspondence, 400
Playfair, Surg. Lieut.-Cmdr. Q. S., missing: N... sought, 754
Pneumococci: "Fastness" of staphylococci, ha... lytic streptococci, and pneumococci to pen... (E. W. Todd and others), 603
Pneumoconiosis: Of coal-miners, 194—Of gr... workers, 195—Compensation for, 790—Rese... into, 945
Pneumonia: Asthma after, 374—In London in... (annotation), 466
Pneumoperitoneum: And pregnancy, 520—Ma... surgical emphysema, pneumothorax, and pne... peritoneum (Ronald Jones), 530 (O); c... spondence, 665—For early apical tubercu... 791
Pneumothorax: Mediastinal emphysema and ... teral pneumothorax after tracheotomy (J. B... Whigham), 47—Massive surgical emphy... pneumothorax, and pneumoperitoneum (R... Jones), 530 (O); correspondence, 665
Pneumothorax, artificial. *See* Tuberculosis
Podophyllin for warts, 592, 910

POISONING:
Carbon monoxide (leading article), 887
D.D.T. *See* D.D.T.
Fish stings, 374
Lead, due to mobilization of lead from the skeleton by leukaemic hyperplasia of bone marrow (Alexander Brown and Sidney Lionel Tompsett), 764 (O)
Potassium thiocyanate (annotation), 393
Salicylates, toxicity of (annotation), 19
Trichlorethylene, accidental drinking of (J. A. Stephens), 218; correspondence, 367

Poland: Food conditions (leading article on book by Leon Dmochowski), 391—Books for Polish doctors, 676—Losses of Polish medicine, 896
Poliomyelitis: In Malta, 26, 61—The dissemination of (leading article), 323—Epidemic in Mauritius, 738
POLLOCK, M. R.: Mixed cases of infective hepatitis: Evidence of liver damage without symptoms among a community at risk (report to M.R.C.), 598 (O)—Liver function in infective hepatitis gauged by hippuric acid synthesis tests, 878 (O)
POLONSKY, M. N.: Prosthesis in amputations through or near hip-joint, 23
Polyneuritis: After jungle sores: A series of 21 cases (R. L. Ward and A. S. Mason), 252 (O) — Acute infective (C. P. Petch), 254 (O)
PONIEDEL, C.: Chronic pulmonary tuberculosis, 476
Population: Declining (book review), 49—Means for keeping it up, 369—Current Trends and Future problems in Great Britain (book notes), 572—Mass observation and the birth-rate (leading article), 926
Populations, the future of (leading article), 258; correspondence, 413
Porphyria, acute idiopathic (G. Discombe and John L. D'Silva), 491 (O)
PORRITT, A. E. (and others): B.L.A. surgery, 377 (O); correspondence, 476
Porter, William, obituary notice of, 237
POTTER, Petronella (and Hilda ROBERTS): Belsen Camp, 100
POWELL, A. T. W.: Some dysentery in day nurseries, 132
— James, obituary notice of, 370
POWELL-TUCK, G. A.: A case for diagnosis, 950
POWER, Stephen: Spinal analgesia, 897
PRATT, F. W. M.: Trigger finger, 241—Prolapsus ani in a child, 242

PREGNANCY:
Abscess: Pregnancy after amoebic liver abscess, 106
Albuminuria, 484
Amputation of thigh, pregnancy after, 518
"Atomic" pregnancy, 342
Cervix, partial atresia of, complicating pregnancy (M. A. Majekodunmi), 320
Diabetes and, 340
Ectopic, arterial thrombosis after (Robert Newton), 438
Embolism, air in, 793
Exercises during, 712
Extra-uterine, full-term, associated with extensive prolapse (R. Glyn Morgan and Nora L. Keevil), 649
Hysterectomy, subtotal, pregnancy after, 105
Perineal operations, pregnancy after, 108
Pneumoperitoneum and, 520
Ptyalism, 108, 414
Terminating pregnancy, 592
Urine: Relation between gastric acidity and the anterior-pituitary-like hormone content of wine in pregnant women (Stanley Way), 182 (O)
Uterus bicornis, pregnancy in (R. M. Corbet), 894
"White leg," 71

PREPARATIONS AND APPLIANCES:
Anaesthetic tubing, support for (O. R. Tisdall), 924
Babies, premature, heated carrier for transporting (J. N. O'Reilly), 731
Bankart's operation: A technique of drilling the glenoid in, for recurrent dislocation of shoulder (P. B. Moroney), 122
Bed-sores, apparatus for treating (J. F. Neil), 390
"Biotin" ampoules (Ashe Laboratories, Ltd.), 122
Corset dressing, adhesive, for gaping wounds (M. Lichtenstein), 158
Endotracheal connexions, wide-bore (H. L. Thornton), 534
"Flavazole" (Boots Pure Drug Co., Ltd.), 428
Fractures: Apparatus to elevate a fracture case for application of plaster (J. Noel-Jackson), 16
Harness and tubing support, combined (Harvey Nichol), 651
Microscope, projection, for use in daylight (T. S. Davies), 428
Penicillin: A systemic apparatus (F. Ronald Edwards), 86—Indwelling syringe for administration (H. F. Barnard), 498—Simple apparatus for administration (A. J. P. Graham), 768
Pentothal, continuous, a simple apparatus for (H. Marcus Bird), 289
Pneumothorax, artificial: An improved needle (Alastair Allan), 607
Spectroscope, cheap home-made (B. J. Freedman), 356
Splint, the Thomas, simplified method of applying (Lipmann Kessel), 463
"Sterile" water: an out-patient and surgery technique (Alex Comfort), 187
PREPARATIONS AND APPLIANCES (*continued*):
Sulphathiazole suspension (Menley and James, Ltd.), 572
Transfusion, an aid to (W. D. Linsell), 692
Valve disk for circle absorbers (J. Clutton-Brock), 572
Wolfe, graft, device for fixation of (I. C. Michaelson), 49

Press publicity, 368, 444, 549
PRESS, J. H. (and others): Observations on 96 cases of sporadic infectious mononucleosis, 88
PREWER, R. R.: Psychiatry in the Services, 624
PRICE, I. I.: Risks of gastroscopy with the flexible gastroscope, 510
Pringle, G. H., obituary notice of, 68
—— J. Seton: A method of end-to-end anastomosis in the small intestine, 256; correspondence, 405
Prisoners of war. *See* War
Prisons, medical aspects of, 546, 785
Prolapsus ani in a child, 105; correspondence, 242
Prostate: Observations on 581 patients with prostatic hyperplasia of all types (L. E. McCrea), 85—*X* rays and prostatic hypertrophy, 105; correspondence, 241—*B. proteus* infection, 449—Bladder-neck obstruction due to non-malignant disease (H. Hamilton Stewart), 724 (O); correspondence, 864—Chronic prostatitis, 792—Weight of enlarged prostates, 908
Prostitution, psychology of (book review), 768
Protein: First-class, 519—Metabolism, 815; correction, 872
Prout, William: philosopher-physician, 437
Pruritus and glycosuria, 556, 872
Psoriasis, 412
Psychiatry: Book reviews, 157—Wartime work in psychiatric clinics (annotation), 467—Psychiatry in the Army, 508; correction, 556—War and social psychiatry (book review), 571—In the Services, 668, 706—Prefrontal leucotomy (annotation), 854. *See also* Mental Deficiency
Psychology: A review of psychological work at the Brain Injuries Unit, Edinburgh, 1941-5 (O. L. Zangwill), 248 (O)—In general practice (book review), 288—Psychological development of the child (book review), 355—Fear of heights, 375
Psychoneurotic, invalided, 710
Psychopupillary reflex, 520
Psychosis due to mepacrine (annotation), 162
Psychosomatic factors in disease, 28
—— reactions, 667—"Soma" and "psyche," 675
Public assistance medical care, 710
Puddicombe, Thomas Phare, obituary notice of, 586
Puerperium. *See* Obstetrics
Pugh, William Thomas Gordon, obituary notice of, 168
Pulse rate, variations in, 555
PULVERTAFT, R. G.: Fractured femur, 738
PURDIE, Anthony W.: Midwife's responsibility in placenta praevia, 898
Purpura, 271—After sedormid, 518
PURVES-STEWART, Sir James: *Diagnosis of Nervous Diseases*, 9th ed., 850
PYBUS, R.: British Dietetic Association, 857
PYKE, Magnus: Nutrition in Vienna in September, 1945, 839 (O); leading article, 852
PYLE, H. D. (and others): 14 cases of Vincent's angina treated with penicillin, 382
Pyloric stenosis, radiology and, 941
Pyretotherapy for G.P.I., 308
Pyrexia, trench fever as a cause of, in P.O.W.s, 27
Pyuria, abacterial (Hugh Donovan), 12 (O); correspondence, 167

Q

Quin, Bernard Haselden, executed by the Japanese, 447
Quinine and mepacrine, hypersensitivity to (John Orr), 604
QVIST, G.: Indications for surgery in penetrating chest wounds: importance of pulmonary injury, 521 (O)

R

RACE, R. R. (and A. E. MOURANT): Rh factor and mental deficiency, 194
—— (and others): Hypersensitivity to transfused blood, 83 (O); annotation, 360
RADCLYFFE, Leon: Posture during acute rheumatic fever, 367
Radiographers, examination questions for, 832
Radiography, mass: Of the chest (book review), 86—Ministry of Health circular, 286—Explaining to workers, 450—Mass miniature radiography of factory groups in Middlesex (W. Pointon Dick), 568 (O)
Radiology: Responsibility for accidents in radiological departments (W. M. Levitt), 620—And pyloric stenosis, 941
Radiotherapy for vasomotor rhinitis (annotation), 654
Radium therapy, physical aspects of (book review), 767
RALPHS, F. G.: Accidental infant suffocation, 332—Chronic regional ileitis, 405
RAMMELL, J.: Car without foot pedals, 450
RANSOME, G. A. (and J. F. STOKES): Masking syphilis with penicillin, 133
RAU, L.: Hypoglycaemic fatigue, 234
Raynaud's disease and vibrating machines, 710
Rayner, David Charles, obituary notice of, 629
READ, Grantly Dick: Education in parenthood, 60
READER, N. L. Maxwell: Non-specific mesenteric lymphadenitis, 818
READING, Philip: Ligature of anterior ethmoidal artery for arrest of profuse epistaxis, 848
Rectum, paratyphoid ulcer of (G. Gordon Lennon), 496
Rectus muscle, spontaneous rupture of (Alexander Lyall), 321
REED, G. L.: Midwives' view of maternity and child welfare, 60
REES, John Rawlings: *The Shaping of Psychiatry by War*, 571
—— J. R.: Alien doctors, 136
—— Thomas: Allergy to fish in an asthmatic, 108
REESE, Hans H. (editor): *The 1944 Year Book of Neurology, Psychiatry, and Endocrinology*, 157
Registrar-General: Appointment of Mr. G. C. North to succeed Mr. S. P. Vivian, 297—Quarterly returns: Eire, 70, 481, 947; England and Wales, 306, 751; Northern Ireland, 170, 590; Scotland, 239, 869
Rehabilitation: Medical, in hospital (Harry Platt), 54 (O)—"Orthopaedic," 225—Of the disabled (Ministry of Labour and Nuffield Organization Conference), 264—Of patients suffering from skin disease (R. Mason Bolam), 539 (O); correspondence, 628
Reichelderfer, Luther, death of, 304
Reid, Capt. Adiel Elad Hazael, killed in action, 826
Reiter's disease: Characteristics and treatment (H. H. Rosenblum), 603
REITMAN, F.: Chemically induced convulsion therapy, 300
Relapsing fever. *See* Fever
Relaxin (annotation), 576
RENNIE, John K. (and H. L. Whitchurch BEACH): 4 cases of typhus in Great Britain, 153 (O)
RENOUF, P. L.: Treatment of varicose ulcers, 899
RENSHAW, P. K.: Local sulphonamide therapy, 144
Research, scientific, "reasons" for, 549, 706
Resettlement, occupational, of the disabled: Criticisms of Government scheme, 329
Resignations, 238
Resins, synthetic, sensitization to, 198
RESNICK, Louis: Heavy nupercaine spinal analgesia in operative obstetrics; with report on 394 cases, 722 (O); correspondence, 818, 898, 939
Respiration, artificial, 272, 520
Resuscitation: After drowning, 144, 241—Across a barrel, 342

Reviews of Books:
Allergy (Erich Urbach, with the collaboration of Philip M. Gottlieb), 321
American Medical Practice in the Perspectives of a Century (Bernhard J. Stern), 157
Amino-acid Composition of Proteins and Foods, Analytical Methods and Results (Richard J. Block and Diana Bolling), 48
Anaesthesia: Essentials of Local Anaesthesia in Dentistry (A. Cornford Bowden), 322—Development of Inhalation Anaesthesia (Barbara M. Duncum), 356—History of Surgical Anesthesia (Thomas E. Keys, with an introductory essay by Chauncey D. Leake and a concluding chapter by Noel A. Gillespie), 571
Anatomy: Anatomy as a Basis for Medical and Dental Practice (Donald Maitland), 497—Cahiers de Dessins d'Anatomie (Arlette Barbequot-Butavand), 572—Tissues of the Body. An Introduction to the Study of Anatomy (W. E. Le Gros Clark), 2nd ed., 650
Annals of Science, Vol. 5, No. 3, 322
—— of the University of Otago Medical School, 1875-1939 (D. W. Carmalt Jones), 289
Arterial Hypertension. Its Diagnosis and Treatment (Irvine H. Page and Arthur Curtis Corcoran), 187
Association of Clinical Pathologists: Proceedings, 498
—— National Tuberculosis, Antecedents of (Robert G. Paterson), 86
Atmospheric Pollution in Leicester: A Scientific Survey, 924
Attendant's Guide (Edith M. Stern), 607
Australia: The Health Record (Lady Gowrie Child Centres), 220
Austria, The Health Services in: Problems of Medical Reconstruction and Rehabilitation, 463
Baby of To-day: First Principles in his Management (The late Mrs. J. Langton Hewer; revised by M. Scott-Brown), 692
Bacteria in Relation to the Milk Supply. A Practical Guide for the Commercial Bacteriologist (C. H. Chalmers), 3rd ed., 85
Biology: New Biology—I (edited by M. L. Johnson and Michael Abercrombie), 533
Blood, Atlas of the, in Children (Kenneth D. Blackfan and Louis K. Diamond; with illustrations by C. Merrill Leister), 533
Botany, Textbook of (W. O. Howarth and L. G. G. Warne), 9th ed., revised and re-written, 886
Britain's Way to Social Security (François Lafitte), 923
British Encyclopaedia of Medical Practice, including Medicine, Surgery, Obstetrics, Gynaecology, and other special subjects: Medical Progress, 85
—— Medical Bulletin (British Council), 807

Reviews of Books *(continued)*:
—— Pharmaceutical Codex, 1934, Seventh Supplement. Additions and amendments to Parts I and III, with Cumulative Index, 850
Bucks Old People's Welfare, 572
Canned Foods: An Introduction to their Microbiology (J. G. Baumgartner), 2nd ed., 886
Chemical Age, This. The Miracle of Man-made Materials (William Haynes), 651
Chemistry and Biology of Sea Water, Recent Advances in (D. W. Harvey), 924
Child Welfare (Hilda M. Davis), 121
Children: A Handbook on Diseases of (Bruce Williamson), 4th ed., 187
Chiropodists' Section of the National Register of Medical Auxiliary Services, 5th ed., 86
Clinical Case-Taking (G. R. Herrmann), 3rd ed., 651
—— Laboratory Methods, Synopsis of (W. E. Bray), 3rd ed., 731
Colloids: Their Properties and Applications (A. G. Ward) (Blackie's "Technique" Series), 498
Community Restaurants in Design (F. le Gros Clark), 322
Constitution and Disease (Julius Bauer), 2nd ed., 572
Control of Communicable Diseases (U.S. Office of War Information), 534
Convalescent Medicine (U.S. Office of War Information), 651
Cooking and Nutritive Value (A. Barbara Callow), 462
Copper Sulfate Method for Measuring Specific Gravities of Whole Blood and Plasma (Robert A. Phillips and co-workers in the U.S. Naval Research Unit), 534
Cosmeticology, Modern (Ralph G. Harry), 2nd ed., 572
Czechoslovak Medical Association in Great Britain: No. 2 of the Notes, 390
Dairy Bacteriologists (edited by H. Barkworth), 692
Dentistry, Mechanical (Edward Samson), 289
Dermatology and Syphilology, The 1944 Year Book of (edited by Marion B. Sulzberger; assistant editor: Rudolf L. Baer), 219
Diabetics: Cookery Book for (compiled by the Diabetic Association), 187
Diagnosis, an Index of Differential, of Main Symptoms (by various writers, edited by Herbert French, assisted by Arthur H. Douthwaite), 6th ed., 121
Dictionary, Short Anglo-Polish Medical (W. Tomaszewski), 498
Electrocardiographic Interpretation, Fundamentals of (J. Bailey Carter), 49
Electrocardiography, Clinical (David Scherf and L. J. Boyd), 2nd ed., revised, 427
Embryology, a class book of Practical, for Medical Students (P. N. B. Odgers), 691
Eosinophilie Générale et Locale (L. Dérobert, preface by Prof. M. Duvoir), 606
Eugenics in Prospect and Retrospect (C. P. Blacker), 534
Family Woman and the Feminist (Lady Paterson), 86
Feeding, Modern Methods of, in Infancy and Childhood (Donald Paterson and J. Forest Smith), 8th ed., 427
Food: *Les Régimes des Gastropathes* (Paul Carnot), 288—*Les Régimes des Hépatiques* (Etienne Chabrol), 288
Foster Home Care for Mental Patients (Hester B. Crutcher), 121
Fractures and Orthopaedic Surgery for Nurses and Masseuses (Arthur Naylor; foreword by Ernest Finch), 187
Galen on Medical Experience. First edition of the Arabic Version with English Translation and Notes (R. Walzer), published for the Trustees of the late Sir Henry Wellcome, 288
Getting to Know your Baby (D. W. Winnicott), 121
Gynaecology. *See* Obstetrics and Gynaecology
Hayfever Plants (Roger P. Wodehouse), 49
Head, Acute Injuries of the. Their Diagnosis, Treatment, Complications and Sequels (C. F. Rowbotham; foreword by Norman M. Dott), 2nd ed., 427
Healing Touch (compiled by National Association for the Prevention of Tuberculosis), 16
Home Life and the Community (Leslie George Housden), 158
—— Nursing, A Preliminary Course of, 86
Hospital, The, in Modern Society (edited by Arthur C. Backmeyer and Gerhard Hartman), 691
Immunity: Immuno-Catalysis (M. G. Sevag; preface by Stuart Mudd), 389—Specificity of Serological Reactions (Karl Landsteiner), revised edition, with a chapter on Molecular Structure and Intermolecular Forces by L. Pauling, 389
Intestinal Obstruction, Acute, The Treatment of (Judson T. Chesterman), 389
Intravenous Therapy (K. V. Thakkar), 2nd ed., revised and enlarged, 427
Irish Medical Directory and Hospital Year Book, 1945, 731
League of Red Cross Societies Bulletin, 768
Leukopenia and Agranulocytosis (William Dameshek; edited by Henry A. Christian), 321
Magendie, François: Pioneer in Experimental Physiology and Scientific Medicine in XIX Century France (J. M. D. Olmsted; preface by John F. Fulton), 257
Reviews of Books *(continued)*:
Malaria: Its Diagnosis, Treatment and Prophylaxis (William N. Bispham), 497
Medical Annual, 1945 (edited by Sir Henry Tidy and A. Rendle Short), 651
—— Jurisprudence and Toxicology (John Glaister), 8th ed., 730
—— Manual (U.N.R.R.A.), 807
—— Treatment, Elements of (Sir Robert Hutchison), 4th ed., 86
Medicine: The March of Medicine. The New York Academy of Medicine Lectures to the Laity, 288—Lectures on Preventive Medicine (Harvey Sutton), 355—A History of Medicine (Dougas Guthrie), 606—A Summary of Medicine for Nurses (R. Gordon Cooke), 850
Mental Disorders, The Treatment of (Ancient and Modern) (Richard Eager), 731
Microbial Antagonisms and Antibiotic Substances (Selman A. Waksman), 885
Microbiology and Epidemiology, by various authors (translated from the Russian by H. P. Fox), 807
Mosquitoes: Keys to the Mosquitoes of the Australasian Region: Including a Synopsis of their Distribution and Breeding Habits (Kenneth L. Knight, Richard M. Bohart, and George E. Bohart), 607
Nervous Tension, Release from (David Harold Fink; edited by Harry Roberts), 390
Neurasthenia: *Conceptions et Traitement des Etats Neurasthéniques* (J. Tinel), 322
Neurology: Diseases of the Nervous System Described for Practitioners and Students (F. M. R. Walshe), 4th ed., 121—The 1944 Year Book of Neurology, Psychiatry and Endocrinology, Neurology, edited by Hans H. Reese. Psychiatry, edited by Nolan D. C. Lewis. Endocrinology, edited by Elmer L. Sevringhaus, 157—Diseases of the Nervous System in Infancy, Childhood and Adolescence (Frank R. Ford), 2nd ed., 257—Recent Advances in Neurology and Neuropsychiatry (W. Russell Brain and E. B. Strauss), 5th ed., 497—Nervous Diseases, Diagnosis of (Sir James Purves-Stewart), 9th ed., 850
Neuropsychiatric Diseases, Symposium on. Reprinted from *Medical Clinics of N. America*, 924
Nutrition: Manual of Nutrition (H.M.S.O.), 158—The Science of (Henry C. Sherman), 219—Nutrition (W. R. Aykroyd) (Oxford Pamphlets on Indian Affairs, No. 21), 807—Manual of Nutrition (Rose Simmonds), 807
Obstetrics and Gynaecology: The 1944 Year Book of Obstetrics and Gynecology (edited by I. P. Greenhill), 257—A Study of Endometriosis, Endosalpingiosis, Endocervicosis and Peritoneo-ovarian Sclerosis (James Robert Goodall), 2nd ed., 356—Midwifery. Principles and Practice for Pupil Midwives, Teacher Midwives, and Obstetric Dressers (R. Christie Brown and Barton Gilbert; Infants' Section by Richard H. Dobbs), 2nd ed., 533—Recent Advances in Obstetrics and Gynaecology (Aleck W. Bourne and Leslie H. Williams), 6th ed., 533—American Gynecological Society: Transactions (edited by Howard C. Taylor), 534—Gynecological and Obstetrical Urology (Houston S. Everett), 730—Synopsis of Obstetrics and Gynaecology (Aleck Bourne), 9th ed., 886
Orthoptists' Section of the National Register of Medical Auxiliary Services, 6th ed., 257
Oto-rhino-laryngology: Diseases of the Nose, Throat and Ear. A Handbook for Students and Practitioners (I. Simson Hall), 3rd ed., 886
Our Baby: For Mothers and Nurses (the late Mrs. J. Langton Hewer), 23rd ed., revised by Margaret Scott-Brown, 886
Pathology: Of Internal Diseases (William Boyd), 4th ed., 768—An Introduction to Medicine and Surgery (J. Henry Dible and Thomas B. Davie), 2nd ed., 806—Textbook of Pathologic Anatomy in its Relation to the Causes, Pathogenesis, and Clinical Manifestations of Disease (Robert Allan Moore), 691
Patients Have Families (Henry B. Richardson), 355
Penicillin Therapy, including Tyrothricin and other Antibiotic Therapy (John A. Kolmer), 462
Physical Treatment by Movement, Manipulation and Massage (James B. Mennell), 5th ed., 462
Physiological Chemistry, Practical, for Medical Students (G. M. Wishart, D. P. Cuthbertson, and J. W. Chambers), 3rd revised edition, 692
Physiology: Annual Review of Physiology, Vol. VII (editor, James Murray Luck; associate editor, Victor E. Hall), 186—Applied Physiology (Samson Wright), 8th ed., 923
Plaster-of-Paris Technic (Edwin O. Geckeler), 355
Population Facts and Policies (Eva M. Hubback), 49
—— of Great Britain: Current Trends and Future Problems (Mark Abrams), 572
—— Question, Observations on the (Innes H. Pearse), 807
Prostitution, The Psycho-Pathology of (Edward Glover), 768
Psychiatry: The Shaping of Psychiatry by War (John Rawlings Rees), 571
Psychology: Psychology in General Practice (Edited by Alan Moncrieff) (The Practitioner Handbooks), 288—*L'Evolution Psychologique de l'Enfant* (Henri Wallon), 355
Psychotherapy, Active (Alexander Herzberg), 650
Public Medical Care: Principles and Problems (Franz Goldmann), 650
Reviews of Books *(continued)*:
Radiography, Mass, of the Chest (Herman E. Hilleboe and Russell H. Morgan), 86
—— Positioning in (Miss K. C. Clark), 4th ed., 692
Radium Therapy: Its Physical Aspects (C. W. Wilson), 767
Rebuilding Family Life in the Post-War World (edited by Sir James Marchant); introduction by Lord Horder), 258, 886
Rheumatic Diseases, The (G. D. Kersley; foreword by Sir Francis R. Fraser), 2nd ed., 606
Scabies: Human Guinea Pigs (Kenneth Mellanby), 691
Scottish Council for Research in Education, Its Aims and Activities. Publications of the Scottish Council for Research in Education, XXIV, 322
Sex, A Psychologist Looks at (Howard L. Philp), 807
Shoulder Lesions (H. F. Moseley), 49
Singing, the, of John Braham (John Mewburn), 220
So You Have a Toddler (Arthur C. Gee), 427
Soap, Medical Uses of: A Symposium (edited by Morris Fishbein), 923
Surgery: Surgery Errors and Safeguards (Max Thorek; with foreword by Sir Hugh Devine, and a chapter on Legal Responsibility in Surgical Practice by Hubert Winston Smith), 4th ed., completely revised, 16—Text book of Surgical Pathology (C. F. W. Illingworth and B. M. Dick), 5th ed., 356—The 1944 Year Book of Industrial and Orthopedic Surgery (edited by Charles F. Painter), 390—Surgical Disorders of the Chest, Diagnosis and Treatment (J. K. Donaldson), 427—Surgical Clinics of North America, 731—Hey Groves's Synopsis of Surgery (edited by C. P. G. Wakeley), 12th ed., 731—Extensile Exposure Applied to Limb Surgery (Arnold K. Henry), 806—Surgery of the Hand (Sterling Bunnell), 885
Symptoms, The Analysis and Interpretation of (edited by Cyril M. MacBryde), 498
Telepathy: An Outline of its Facts, Theory, and Implications (Whately Carington), 2nd ed., 886
Temperament, Character and Personality (Mrs. N. MacKenzie), 692
Thoughts, Deeds and Human Happiness (K. W. Monsarrat), 15
Trauma in Internal Diseases: With Consideration of Experimental Pathology and Medico-Legal Aspects (Rudolf A. Stern; foreword by Francis Carter Wood), 220; English issue, 356
—— Technique in: Planned Timing in the Treatment of Wounds, including Burns (Fraser B. Gurd and F. Douglas Ackman), 849
Tropics, Diagnosis and Treatment of Diseases in the (H. C. Trowell), 2nd ed., 849
Tuberculosis: Aids to Tuberculosis for Nurses (L. E. Houghton and T. Holmes Sellors), 390—Pathways in Aftercare, 731—Tuberculosis in the United States, Graphic Presentation, Vol. II Federal Security Agency, U.S. Public Health Service and Medical Research Committee, National T.B. Association, 768—Pulmonary Tuberculosis in the Adult: Its Fundamental Aspects (Max Pinner), 849
Vascular Sclerosis: With Special Reference to Arteriosclerosis. Pathology, Pathogenesis, Etiology, Diagnosis, Prognosis, Treatment (Eli Moschowitz), 767
Venereal Diseases: Prevention of Venereal Disease (L. Martindale)., 15—Gonorrhoea. A collection of 12 articles, 49—On Modern Syphilotherapy, With Particular Reference to Salvarsan (Albert Neisser; translated by Isabelle von Sazenhofen Wartenberg; biography and bibliography by F. T. Gardner), 463—Handbook of Diagnosis and Treatment of Venereal Diseases (A. E. W. McLachlan), 2nd ed., 731—People Who Live in Glass Houses, 768
Virus Diseases in Man, Animal and Plant (Gustav Seiffert), 220
Vocabulary, Medical and Nursing, in English and Greek (Hester Viney), 390
Welfare in the British Colonies (L. P. Mair), 16
X-ray Examination of the Stomach. A Description of the Roentgenologic Anatomy, Physiology and Pathology of the Oesophagus, Stomach, and Duodenum (Frederic E. Templeton), 730
Year Book of Inter-Allied Health Charter Movement, 850

Rh factor. *See* Blood
Rheumatic diseases (book review), 606
Rheumatism: Palindromic (Alec Wingfield), 157—Acute, 214—Bruising and, 375, 520—Chronic, in Scotland (Medical Advisory Committee's Report), 470—Heberden Society Dinner, 659—Calcium *o*-iodoxybenzoate in, 753—Campaign against (leading article), 771—Research in, 790
Rhinitis, vasomotor, radiotherapy for (annotation), 654
RICHARDS, Henry: Venereology, 414
RICHARDSON, Henry B.: *Patients have Families*, 35
—— J. S. (and W. S. SUFFERN): Therapeutic trial of choline chloride in infective hepatitis, 156 (O); leading article, 573; correspondence, 664
RICHES, E.W.: Oestrogen for cancer of prostate, 91
Richmond, Surg. Cmdr. Archibald Hamilton Douglas Ord, death of, 788
—— David A. (and Ian D. KITCHIN): Two unusual stress fractures, 214 (O)
Rickards, Joseph, obituary notice of, 787

Rickets: The problem of (British Paediatric Association), 736—The first treatise on (Nova et Vetera), 930
Rigby, Rupert Alan Clayton, obituary notice of, 866
RIGDEN, B. G. (and Philip STEEN): Artificial pneumothorax refill, 900
Ringworm, human, Role of animal-type dermatophytes in (Bernard A. Thomas and others), 346 (O)
ROBBINS, S. L.: Three cases of cerebral abscess complicating congenital septal defects of heart, 267
ROBERTS, Audrey: Tuberculous persons in prisons, 100
— Cuthbert: Surgery in W. Africa, 937
— Hilda (and Petronella POTTER): Belsen Camp, 100
— Llywelyn: Sweating sickness and Picardy sweat, 196
— Maiben: Volvulus of small intestine, 704
— Nigel W.: Effects of tobacco smoking on health, 342
ROBERTSON, A. Niven: Air embolism, 474
— Ivor: Treatment of chronic infective osteitis, 23
ROBINSON, Frank: Treatment of denuded external skull table, 703
— G. (and K. R. HILL): Fatal case of D.D.T. poisoning in a child, with account of 2 accidental deaths in dogs, 845 (O)
— P.: Haemolytic streptococcal throat infections: their complications and sequels, with special reference to penicillin treatment, 213 (O)
— T. G.: Pregnancy after perineal operation, 108
— Virginia L. M., assistant of John A. Degen, jun., *q.v.*
Robson, Capt. Albert, killed, 409
Rockefeller Fellowships in preventive medicine, 227
ROGERS, B.: The Westerglen E.S.R. technique, 940
— Lieut. Geoffrey, previously reported missing now known to have been killed in action, 826
— Lambert: Sciatic neuritis, 784
Rorschach test, 752
ROSE, H. N.: Treatment of plantar warts by injection, 143
ROSENBLUM, H. H.: Characteristics and treatment of Reiter's disease, 603
ROSS, C. C. (and others): B.L.A. Surgery, 377 (O); correspondence, 476
— James: Spinal analgesia in operative obstetrics, 819
— J. Paterson: Ischaemic phenomena following vascular injuries in lower extremity, 24
ROWBOTHAM, C. F.: *Acute Injuries of the Head. Their Diagnosis, Treatment, Complications, and Sequels*, 2nd ed., 427
ROWLANDS, John (and others): Arterial aneurysm following injury to iliac vessels: report of 2 cases, with a commentary on large transfusions, 451 (O)
— S. D.: Artificial pneumothorax refill, 863
ROWORTH, Guy: The Special Treatment Centre, 235
Rubella: Case of complete heart-block in pre-eruptive stage (R. B. Logue and J. F. H. Hanson), 672
Rush, Benjamin, 1745-1813 (Nova et Vetera), 893
RUSSELL, B. (and Arthur BURROWS): Sensitivity to lanette wax, 198
— J. Ivison: Proposals for reform of mental hospitals, 265
Rutherford, Henry Ernest, obituary notice of, 906
— Kathleen: Humanitarianism and the European situation, 549
RYAN, T. F. J. (and J. NAGLE): Small-bowel obstruction due to dried fruit, 426
RYLE, John A.: Problems and prospects of the Institute of Social Medicine, 193—Telling the patient, 581—"A fundamental principle," 936

S

SAKLATVALA, D.: Sulphonamide therapy by the midwife, 939
Salé, Roberto, death of, 788
Salicylates: Toxicity of (annotation), 19—Salicylate and pantothenate (annotation), 224
Saline infusion bottle, 822
Salivation, 870
Salter, Alfred, obituary notice of, 336
Salty taste in mouth, 713
Salvarsan and malaria, 27
SAMSON, Edward: Mechanical dentistry, 289
SANDIFORD, H. B. C.: Car without foot pedals, 520
SANER, J; Donaldson: Nocturnal cramp, 342
SANGUINETTI, Harold H.: Permission to practise for enemy aliens, 514
SANTULLE, T. V. (and E. J. DONOVAN): Gastric and duodenal ulceration in infancy and childhood, 181
SARKISOV, S.: Some new develpoments in morphophysiology of cerebral cortex, 37 (O); correction, 242—Doctors and the social trend, 514—medicine in the U.S.S.R., 669
SASS, F. J. Wilfrid: Tuberculous persons in prisons, 301; correction, 376
SAVAGE, Sir William: Public health and its debt to experimental medical research (Stephen Paget Memorial Lecture), 615
SAWDAY, A. Ernest: Tribute to Dr. Alexander Brown, 446
Scabies: And D.D.T. (F. F. Hellier), 255—Research on (book review), 691—Benzyl benzoate for, 948
Scalenus anticus syndrome, 902
SCALES, John T. (and Woolf HERSCHELL): Perspex in orthopaedics, 423 (O); correspondence, 512, 585
SCHALIT, I.: Anaesthesia and blood transfusion in 14 cases of traumatic aneurysm, 921
SCHERF, David (and L. J. BOYD): *Clinical Electrocardiography*, 2nd ed., 427
Schick test. *See* Diphtheria.
Schindel, L.: Diiodo-hydroxyquinoline in lambliasis, 512
Schistosomes, adult, destruction of, in man, 910
Schistosomiasis, 591—Cutaneous, involving *S. haematobium* eggs (K. O. Black), 453 (O)
School, Liverpool, of Tropical Medicine: 46th report, 834
SCHORSTEIN, J. (and Patrick CLARKSON): Treatment of denuded external table of skull, 422 (O); correspondence, 544, 703
SCHWARTZ, B.M.: 14 cases of Vincent's angina treated with penicillin, 382
— M.: Women in labour, 513
Sciatic "neuritis" (J. MacD. Holmes and B. R. Sworn), 350 (O); correspondence, 440, 544, 582, 701, 703, 785
Sciatica, subcutaneous oxygen for, 703, 822
Scientific films, 460
— instruments, the making of (annotation), 538
SCLARE, A. Balfour: Psychiatry in the Services, 668
Sclerosis, disseminated: Remissions in (W. Lees Templeton), 405—And trauma, 712
— vascular (book-review), 767
Scotland: Medical War Committees, 95—Registrar-General's quarterly returns, 239, 869—Deaf-mutism, congenital, 437—Chronic rheumatism in (Medical Advisory Committee's report), 470—Public Health Bill, 790
Sculling for one-armed men, 144
Seamen: A seaman's right to treatment, 236
Seasickness, prevention of, in assault craft: report of experiments under tropical conditions (Ian G. W. Hill and A. L. Guest), 6 (O)
SEDDON, H. J. (and E. C. S. JACKSON): Influence of galvanic stimulation on muscle atrophy resulting from denervation, 485 (O); correspondence, 622
— (and others): Galvanic stimulation of denervated muscle, 745
Sedormid, purpura after, 518
SEIDE, J.: "Geomedicine," 896
SEIFFERT, Gustav: *Virus Diseases in Man, Animal, and Plant*, 220
Seiler, Fritz, death of, 409
SELLORS, T. Holmes (and L. E. HOUGHTON): Aids to Tuberculosis for Nurses, 390
Seminology, meeting on, 230. *See also* Spermatazoa
Sensitivity, 376—To lanette wax, 198. *See also* Allergy
Sensitization to synthetic resins, 198
Septic finger: Case of scalding; damages awarded, 931
Septicaemia, *Ps. pyocyanea*: Agranulocytosis after sulphonamide sensitization: penicillin therapy: death from *Ps. pyocyanea* septicaemia (J. D. Cameron and J. R. Edge), 688 (O)
— *Staph. pyogenes*, treated with penicillin (G. I. M. Swyer), 532 (O)
Serological reactions and the formation of antibodies (book review), 389
Serum proteins, estimation of (Hans Hoch and John Marrack), 151 (O); by the Linderström-Lang gradient, 876 (O)

SERVICES:
Appointments, 31, 66, 101, 132, 168, 200, 238, 269, 335, 409, 447, 479, 552, 588, 672, 749, 906, 946
Awards, 31, 66, 101, 168, 200, 335, 409, 447, 479, 552, 588, 672, 710, 749, 826, 906, 946
Casualties in the Medical Services, 32, 66, 101, 132, 169, 200, 238, 335, 371, 409, 447, 552, 672, 710, 788, 826, 906
Deaths in the Services, 66, 826, 946
Demobilization, 335
Died, 101, 200, 335, 447, 552, 672, 788, 826, 906
— on active service, 32, 552
Efficiency decoration, 335
Freed in the Far East, 409, 447, 479, 552, 672
Killed, 409, 552, 710, 826
— in air accident, 826
— in road accident in Rome, 710
— previously missing, 826
Medical officers in B.L.A., 553
Mentioned in dispatches, 31, 66, 101, 168, 200, 238, 269, 335, 409, 447, 479, 552, 588, 672, 710, 749, 788, 906, 946
Missing, now reported died as prisoner of war in Rangoon, 32
— presumed killed, 238, 371, 672
— from Sumatra, Feb., 1942, 672
Navy: Postgraduate courses, 827—Ratio of M.O.s, 827
R.A.F. Medical Service, 1939-45, 397—physical medicine establishment, 779
R.A.M.C. Memorial, Newbattle Parish Church, 588
Repatriated, 447, 552, 588, 710, 749
Sanatorium treatment, 239
Wounded, 132, 169, 335, 371, 409, 447, 552, 710

SEVAG, M. G.: *Immuno-Catalysis*, 389
SEVRINGHAUS, Elmer L. (editor): *The 1944 Year Book of Neurology, Psychiatry, and Endocrinology*, 157
Sex: Thyroid and sex function (annotation), 772—A view of (book review), 807
SHACKLE, J. W.: Methods of venepuncture, 27—Significance of E.S.R., 741
Shackled mind, the, 439
SHALLENBERGER, P. L. (and others): 14 cases of Vincent's angina treated with penicillin, 382
Shampoos, soapless, 908
SHAW, Wilfred: Politics and medicine, 824
SHEEHAN, W. J. (and J. T. CHESTERMAN): Prophylaxis of paralytic ileus by administration of morphine, 528 (O); correspondence, 622, 740, 817, 938, 950
SHEPPARD, M. D.: Aspiration test in diagnosis of breast tumours, 231
SHERMAN, Henry C.: *The Science of Nutrition*, 219
Sherren, James, obituary notice of, 670
SHIELS, Sir T. Drummond: Day nurseries, 198
SHLEVIN, E. L. (and others): Observations on 96 cases of sporadic infectious mononucleosis, 88
Shock: Haematemesis in, 141—Foot-up position in, 340—Progress in the investigation of (annotation), 695—And open ether, 938
SHORVON, H. J.: Use of benzedrine sulphate by psychopaths: the problem of addiction, 285 (O)
Shoulder: Lesions (book review), 49—Technique of drilling the glenoid in Bankart's operation for recurrent dislocation (P. B. Moroney), 122; correspondence, 197
SHRUBSHALL, W. W.: Chin-chin!, 668; correction, 714
SIEGAL, S.: Five cases of unusual syndrome of intense paroxysmal abdominal pain and high fever, 437
SILCOCK, F. A. E.: Medical photography, 704
Silicosis: In Rhodesian copper mines, 790—Compensation and statistics, 945
SIMMONDS, F. A. H.: Acute surgical emergencies and pulmonary tuberculosis, 299
— Rose, *Manual of Nutrition*, 807
Simmonds's disease due to post-partum necrosis of anterior pituitary: carcinoma of stomach (R. T. Cooke), 493 (O)
SIMMONS, H. J.: Treatment of chilblains by paravertebral sympathetic block, 884
SIMPSON, A. D. H.: Spinal analgesia in operative obstetrics, 898
— D.: Use of the cautery in plastic operations on the eyelids, 424 (O)
— S. L.: Hormone therapy for cancer, 935
Singapore: Medical prisoners (R. E. Anderson), 660
Singing and breathing (book review), 220
SKELTON, M. O. (and Geoffrey H. TOVEY): Relation between congenital obliteration of bile ducts and icterus gravis neonatorum, 914 (O)
Skin: Bactericidal effect of mixtures of ethyl alcohol and water, with special reference to sterilization of the skin, and a note on the comparable effects of ether (G. T. L. Archer), 148 (O); leading article, 222—Rehabilitation of patients suffering from skin disease (R. Mason Bolam), 539 (O); correspondence, 628—Cutaneous schistosomiasis involving *S. haematobium* eggs (K. O. Black), 453 (O)
SKLARZ, Ernst: Salvarsan and malaria, 27
Skull: Treatment of denuded external table (Patrick Clarkson and J. Schorstein), 422 (O); correspondence, 544
Sleep-walking, 108, 241 (correction, 308), 342, 414
SLOT, Gerald (and F. D. HART): Glandular fever with neutropenia, 495 (O); correspondence, 702, 743, 896
Smallpox: Edinburgh outbreak, 1942, 63—Vaccination, 172—And diphtheria immunization, 340
SMART, G. A. (and others): Food consumption of working-class and lower-middle-class families in Brussels during January, 1945, 351 (O)
— H. Douglas, obituary notice of, 371
— Joseph: Stethoscope *versus x* rays, 857
— Morton: Rehabilitation of fractured limbs, 581
SMITH, A. H. D.: Epidemic diarrhoea, 266
— Surg. Lieut. J. B. Gurney: Tribute to Sir W. Girling Ball, 200
— J. Forest (and Donald PATERSON): *Modern Methods of Feeding in Infancy and Childhood*, 8th ed., 427
— J. Morland: Post-operative vomiting in relation to anaesthetic time, 217 (O)
— Richard Travers, obituary notice of, 515
— R. N. C.: The child with frequent colds, 742
— S. Watson: Clinical photography, 785
SMYTH, W. Johnson: The "stamping" of the Guards, 865
Snake venom for epilepsy, 412
Soap, medical uses of (book review), 923
Society, American Gynecological: *Transactions*, 534
— of Apothecaries of London: Pass list, 31—Meeting, 169—Appointments, 169—Apprenticeships, 169—Diplomas granted, 169—Diploma in Industrial Health, 480
— of British Neurological Surgeons: 33rd meeting, 164—A review of psychological work at the Brain Injuries Unit, Edinburgh, 1941-5 (O. L. Zangwill), 248 (O)
— Central Co-operative Anti-malaria, Limited: Twenty-fifth anniversary, 238
— Chelsea Clinical: reopening dinner, 935
— Edinburgh Royal Medical: Medicine and the State, with special reference to the E.M.S (Walter Elliot), 911 (O)
— Heberden: Meeting, 578—Dinner, 659
— Illuminating Engineering: Presidential address on good lighting, 542
— International, of Surgery: Informal meeting, 227

Society, Manchester Medical: Evolution of speech organs (V. E. Negus), 25
—— Medical Benevolent, for North and East Ridings of the County of York: Annual meeting, 518
—— —— of London: Presidential address: The aetiology of gall-stones (Sir James Walton), 593 (O); correspondence, 700—Hormone therapy of cancer, 934

SOCIETY OF MEDICAL OFFICERS OF HEALTH:
Annual luncheon, 447
County Borough Group: Annual meeting, 193
Fever Group: Local Health Services in the U.S.A., 25—Infectious diseases of children, 131

Society, North of England Obstetrical and Gynaecological: Report on meeting, 438—Pregnancy in a uterus bicornis, (R. M. Corbet), 894
—— Nutrition: Nutritional factor affecting wound healing, 95—Memorandum by Special Planning Committee on the training and qualifications of dietitians, 617; correction, 676—Protein metabolism, 815—Training, qualifications, and functions of dietitians (discussion), 857
—— Pharmaceutical, of Great Britain: President elected, 70
—— for Relief of Widows and Orphans of Medical Men: Annual general meeting, 22—Grants, 140—Meeting of Court of Directors, 790
—— Research Defence: Public health and its debt to experimental medical research (Sir William Savage, Stephen Paget Memorial Lecturer, 1945), 615

SOCIETY, ROYAL, OF MEDICINE:
Awards, presentation of, 58
Section of Dermatology: Lupus vulgaris treated with calciferol, 935
Section of Disease in Children: The training of clinical teachers (Norman Capon), 662
Section of Experimental Medicine and Therapeutics: International biological standards (Walter Ernest Dixon Memorial Lecture), 579—Discussion on D.D.T., 93
Section of History of Medicine: Medical poets (Sir Arthur MacNalty), 698
Section of Medicine: Hypertension (T. Izod Bennett), 661; correspondence, 746—Stethoscope *versus* x rays (debate), 856; correspondence, 941
Section of Neurology: The "discharging lesion" in neurology (Presidential address), 580
Section of Obstetrics and Gynaecology: Placenta praevia, 779
Section of Ophthalmology: Penicillin in ophthalmology, 542
Section of Proctology: Management of the permanent colostomy, 229
Section of Psychiatry: Lessons from active service (G. W. B. James), 620
Section of Radiology: Responsibility for accidents in radiological departments (W. M. Levitt), 621
Section of Surgery: Sense and sensibility in treatment of cancer (Ernest Finch), 894
Section of Urology: Urinary bilharziasis, 60
Visitor's reading room, 270
X rays: Commemorative meetings on 50th anniversary of discovery, 699, 736

Society, Royal New Zealand, for the Health of Women: Report, 411
Sodium amytal, 375
Soft-tissue and bone deficiency in limbs (British Orthopaedic Association), 22
SOLOMONS, D.: Observations on 19 cases of infective mononucleosis, 659
SOMERS, R. B. Usher: Case of tick typhus in the Sudan, 848
SOMERVILLE, C. L.: Domiciliary midwifery and the family doctor, 442
—— E.: Arthrography of knee-joint, 738
SORSBY, Arnold: Penicillin in ophthalmology, 542—Incidence and causes of blindness in British Commonwealth, 557 (O)
SOUTAR, Margaret (and Arthur MILLS): General anaesthesia and temperature of inhaled gases, 646 (O)
South Africa: Undulant fever in the Transvaal (annotation), 505—Medical research in, 932
SOUTTAR, H. S.: Return of the doctor (Presidential address to B.M.A.), 163—Nerve injuries in children, 349 (O); correspondence, 473, 545, 627—Tribute to James Sherren, 670
Spectroscope, cheap home-made (B. J. Freedman), 356
Speech: Evolution of speech organs (V. E. Negus), 25—Speech training, 172—Speech therapists, 803
Spermatozoa: Preservation at low temperatures (A. S. Parkes), 212 (O)—Morphological abnormalities, 230
Spine: Intervertebral disk lesions, 24
SPITZER, Walter: Acute inversion of uterus, 475
Splenectomy. *See* Surgery
Splints: A simplified method of applying the Thomas splint (Lipmann Kessel), 463—New principle in construction (Norman Capener), 738
Spraying enclosed spaces, 72, 172
Sputum, swallowed, digestive disorders and, 341, 556
STALLARD, H. B.: Bitterness, 407
STAMMERS, F. A. R.: Penicillin and synthetic rubber, 400
"Stamping" of the Guards. *See* Fracture, march
Standardization of instrument fittings and apparatus, 166, 204
Stanley, C. A., death of, during internment in Singapore, 660
Staphylococci: "Fastness" of staphylococci, haemolytic streptococci, and pneumococci to penicillin (E. W. Todd and others), 603 (O)
STARK, Michael: Doctors and the social trend, 335
Staunton, Major Harry William Gilbert, killed in air accident, 826
Steatorrhoea: A syndrome resembling Addison's disease, with severe anaemia, steatorrhoea, and melanuria (S. Locket), 417 (O)
STEELE, G. H.: Non-specific mesenteric lymphadenitis, 861
STEEN, Philip (and B. G. RIGDEN): Artificial pneumothorax refill, 899
STEIN, K. H.: "Predisposition" to war neuroses, 28
STEINBERG, C. L.: Ten cases of meningo-encephalitis in a total of 165 cases of mumps, 21
STENT, Lois (and others): Outbreak of epidemic diarrhoea and vomiting in a general hospital and surrounding district, 524 (O); correspondence, 627, 666, 746
STEPHENS, George Arbour: Toothbrushes and good teeth, 108—Milk still unsafe, 301—Potassium thiocyanate in hypertension, 746—Obituary notice of, 904
—— J. A.: Poisoning by accidental drinking of trichlorethylene, 218; correspondence, 367
Sterilization, the law and, 753
Sterilizing needles, 36
STERN, Bernhard J.: *American Medical Practice in the Perspective of a Century*, 157
—— Edith M.: *The Attendant's Guide*, 607
—— Rudolf A.: *Trauma in Internal Diseases. With Considerations of Experimental Pathology and Medico-Legal Aspects*, 220, 356
Stethoscope *versus* x rays (R.S.M. debate), 856; correspondence, 941
STEVENS, T. Russell: Nylon for buried sutures, 901
STEVENSON, J. A. F.: Nitrogen balance in acute diseases, 96
—— John: Ambulatory treatment of duodenal ulcer in a factory, 298
—— R. Scott: Fenestration for otosclerosis, 544
—— Surg. Cmdr. T. C., missing from Sumatra end of Feb., 1942, 672
—— Lieut.-Col. W. D. H., obituary notice of, 786
—— C. P.: Pertussis immunization, 931
STEWART, Alice (and others), Therapeutic effect of induced jaundice in rheumatoid arthritis, 677 (O); correspondence, 782, 859, 864
—— A. W. (and others): The Mikulicz resection operation for gangrenous intussusception in infants, 382 (O)
—— C. P.: Essential amino-acids, 815
—— F. H.: *Ascaris lumbricoides*, 107
—— H. C.: Ergometrine for migraine, 745
—— H. Hamilton: Bladder-neck obstruction due to non-malignant disease of prostate, 724 (O); correspondence, 864
—— H. Hilton: Case of paraplegia after cerebrospinal meningitis, 319 (O)
Stilboestrol: For suppressing lactation, 341—For premature infants, 374
Still's disease, treatment of (A. Louis), 569
Sting-ray's sting, toxic properties of, 165, 267, 376
Stings: Unusual complication of a wasp sting, 450
STOCK, Francis E.: Initial treatment of tropical ulcer, 388
STOKES, J. F. (and G. A. RANSOME): Masking syphilis with penicillin, 133
—— (and others): Neurological complications of infective hepatitis, 642 (O)
Stomach: Case of acute dilation of (C. Ll. Lander), 387—An experimental study of a man and his stomach (annotation), 431
—— cancer of. *See* Cancer
STONE, E. M. (and others): The shortage of nurses, 242
STOTT, H.: Treatment of human cutaneous anthrax with penicillin, 120
STRANGE, E. H.: Buying and selling practices, 903
—— F. G. St. Clair: Nerve injuries in children, 545
STRAUSS, E. B. (and W. Russell BRAIN): *Recent Advances in Neurology and Neuropsychiatry*, 5th ed., 497
Streptococci: "Fastness" of staphylococci, haemolytic streptococci, and pneumococci to penicillin (E. W. Todd and others), 603 (O)
Stress: Effect of mechanical stresses on man (Oliver-Sharpey Lecture) (B. H. C. Matthews), 114 (O); leading article, 122; correspondence, 199. *See also* Altitude
STUART, G.: A note on diphtheria incidence in certain European countries, 613 (O)
STUNGO, Ellis: Psychosomatic factors in disease, 28—Diet in morphine addiction, 547, 823
Styloid process, elongated, causing symptoms in throat, 634
SUCHECKI, A. I.: Artificial pneumothorax refill, 821
Sudan: Health of (annotation), 467—A case of tick typhus in (R. B. Usher Somers), 848
SUFFERN, W. S. (and J. S. RICHARDSON): A therapeutic trial of choline chloride in infective hepatitis, 156 (O); leading article, 573; correspondence, 664
Suffocation, infant, accidental (W. H. Davison), 251 (O); correspondence, 332
Sugar: Demerara *v.* white, 832
Sulphaemoglobinaemia due to aniline derivatives (S. Lazarus), 565 (O)
SULPHONAMIDES:
Agranulocytosis after sulphonamide sensitization: penicillin therapy: death from *Ps. pyocyanea* septicaemia (J. D. Cameron and J. R. Edge), 688 (O)
Allergy, 633
Anaemia, acute haemolytic, due to administration of sulphonamides (F. B. Cockett), 884
B. coli infections, sulphonamides for, 171
Influenza: Meningitis due to a penicillin- and sulphonamide-sensitive Pittman b strain of *H. influenzae*: recovery (D. G. McIntosh and Constance F. Drysdale), 796 (O)
Local therapy, 144
Misnomer, 450
Obstetrics: Sulphonamide therapy by the midwife, 939
Rashes, sulphonamide: An analysis of 500 cases seen in N. Africa and Italy (G. A. Grant Peterkin), 1 (O)
Sulphathiazole: Abuse of, 333, 403—"Mikraform" suspension (Menley and James, Ltd.), 572—Synergic action of penicillin and sulphathiazole (J. W. Bigger), 621
Treatment by (leading article), 465
Wounds, sulphonamide chemoprophylaxis for (annotation), 190
SULZBERGER, Marion B. (editor): *The 1944 Year Book of Dermatology and Syphilology*, 219
Sun-lamps, bronzing under, 105

SURGERY:
Abdomen: Need for serum amylase determination in alcoholic patients (S. J. Carter), 255
Aldridge's operation for urinary stress incontinence (J. W. A. Hunter), 438
Amputations: Amputations, re-amputations, and penicillin (E. N. Callum), 599 (O)—Report on nearthrosis of shaft of humerus for amputations round elbow-joint (Leon Gillis), 686 (O)
Anastomosis, a method of end-to-end, in the small intestine (J. Seton Pringle), 256; correspondence, 405
Appendicitis, acute: A study of 480 consecutive cases (Alexander Lyall), 719 (O): Treatment and end-results (James Moroney), 729
Artery, anterior ethmoidal, ligature of, for arrest of profuse epistaxis (Philip Reading), 848
Bankart's operation for recurrent dislocation of shoulder: a technique of drilling the glenoid (P. B. Moroney), 122; correspondence, 197
Bassini's operation: And its modifications, criticism of (George B. Mair), 178 (O)—For inguinal hernia (Thomas L. Gordon), 181 (O)
Catgut, surgical, 668, 742, 784, 863, 937
Cautery, use of, in plastic operations on eyelid (D. Simpson), 424 (O)
Chest: Review of book on, 427—Indications for surgery in penetrating wounds of: importance of pulmonary injury (G. Qvist), 521 (O)
Colostomy, permanent, management of (R.S.M.), 229
Ductus arteriosus, patent, ligation of (annotation), 612
Embolectomy, peripheral arterial (Philip Hopkins), 117 (O)
Errors and safeguards (book review), 16: correspondence, 794
Fenestration for otosclerosis (leading article), 430: correspondence, 509, 543, 626
Filigree operation, 98, 405
Ganglionectomy, lumbar (annotation), 92
Hand (book review), 885
Head injuries (book review), 427
Hydrocele operation, haematoma after, 71
Ileus, paralytic, prophylaxis of, by administration of morphine (J. T. Chesterman and W. I. Sheehan), 528 (O); correspondence, 622, 740, 817, 938, 950
Industrial and Orthopedic, Year Book of (book notes), 390
Leucotomy, prefrontal (annotation), 854
Limb, methods of approach in (book review), 806
Medical patients, surgical conditions in, 364
Mikulicz resection operation for gangrenous intussusception in infants (T. A. Hindmarsh and others), 382 (O)
Needle, eyeless, 74, 242
Neurologist and neurosurgeon, 364
Patella, excision of, 62, 133, 165, 195, 543
Pathology, surgical textbook of (book review), 35
Plaster-of-Paris in surgery (book review), 355
Skull: Treatment of denuded external table of (Patrick Clarkson and J. Schorstein), 422 (O): correspondence, 544, 703
Splenectomy, prognosis after, 592
Subluxation, recurrent, of temporo-mandibular joint, operation for (H. N. G. Hudson), 354
Surgical Science in England (leading article on Scientific Report of R.C.S.), 888
Sutures: Materials and sterilization, 72—Buried, nylon for, 901
Tuberculosis, pulmonary, acute surgical emergencies and, 299, 364
Ureterocolostomy, irreparable vesico-vaginal fistula in Iraq treated by (Donald M. Douglas), 8 (O): leading article, 89
Vagotomy for peptic ulcer (annotation), 611
Varicose veins, the operation for, 510
West Africa, impressions of surgery in (J. L. Willson-Pepper), 812 (O); correspondence, 9
Wounds, gaping, adhesive corset dressing for (M. Lichtenstein), 158

SUTHERLAND, Robert: Work of the Central Council for Health Education, 193
SUTTON, Harvey: *Lectures on Preventive Medicine*, 355
SWAROOP, Satya (and Khan Bahadur M. YACOB): Longevity and old age in the Punjab, 433 (O); correspondence, 545, 624
Sweating sickness and Picardy sweat, 63, 196
Sweats, generalized, 519
SWORN, B. R. (and J. MacD. HOLMES): Sciatic "neuritis," 350 (O); correspondence, 440, 544, 582, 701, 703
SWYER, G. I. M.: Rat-bite fever due to cat-bite: satisfactory response to penicillin after failure of arsenotherapy, 386 (O)—*Staph. pyogenes* septicaemia treated with penicillin, 532 (O)
— Robert: Dysentery and enteritis in children, 131
Syncope. *See* Heart
SYMONDS, C. P.: Sciatic "neuritis," 440
— (and F. M. R. WALSHE): Neurologist and neurosurgeon, 364
Symptoms, analysis and interpretation of (notes on book on), 498
Synovitis and synovectomy, 34
Syringes and spirit: leading article on M.R.C. War Memo. No. 15, 221
SZYLEJKO, H. W. (and others): 41 cases of Vincent's angina treated by penicillin, 718

T

Taeniasis, 129
Tait, Lawson, Centenary: A great abdominal surgeon (annotation), 92
TANNENBAUM, M.: Alien doctors, 550
TATCHELL, Percy: Sculling for one-armed men, 144
TATTERSALL, W. H.: Re-employment of the consumptive, 134; artificial pneumothorax needle, 783
TAYLOR, C. (and F. C. DWYER): Congenital discoid internal cartilage, 287
— Frederic Ryott Percival, obituary notice of, 748
— Hermon: Dangers of gastroscopy, 543
— James: Herpes zoster and chicken-pox, 385 (O)
— Robert (and J. F. FRASER): Diarrhoea due to *Giardia lamblia*, 184 (O)
— William K.: Pernicious anaemia and cancer, 741
— W. O. G.: Sensitivity, 376
— (and others): Dermatitis from wearing Army spectacles, 40 (O); correspondence, 198
TEARE, Donald (and A. MEYER): Cerebral fat embolism after electrical convulsion therapy, 42 (O); correspondence, 167
Teeth: Toothbrushes and good teeth, 108; achlorhydria and dental decay, 307; infection from dead teeth, 714
Telepathy and the group mind (book review), 886
Temperatures, high, work at (leading article), 357
TEMPLETON, Frederic E.: *X-ray Examination of the Stomach. A Description of the Roentgenologic Anatomy, Physiology, and Pathology of the Oesophagus, Stomach, and Duodenum*, 730
— W. Lees: Remission in disseminated sclerosis, 405
Tension, relief of (book review), 390
Testis, descent of, in relation to temperature (Alec W. Badenoch), 601 (O), 942; correspondence, 704, 860
Testosterone in angina pectoris, 171
Tetanus, local, a case of (Frank A. Elliott), 353 (O)
THAKKAR, K. V.: *Intravenous Therapy*, 2nd ed., 427
Therapy: Use of micro-organisms for therapeutic purposes (Sir Howard W. Florey, Lister Memorial Lecture, R.C.S.), 635 (O); leading article, 652
Thiouracil: In treatment of thyrotoxicosis (A. Grainger and others), 343 (O)—For Graves's disease, 792—Myxoedema induced by (C. Allan Birch), 806
THISTLETHWAITE, H.: Ergometrine in migraine, 784
THOMAS, Bernard A. (and others): Role of animal-type dermatophytes in human ringworm, 346 (O)
— C. Price: Scoliosis in relation to thoracic disease, 24
— Dillwyn (and N. R. BARRETT): Hydatid disease of lung, 197
— E. C. and Margaret: Disclaimer, 342
— E. W. Prosser (and G. B. DOWLING): Lupus vulgaris treated with calciferol, 935
— Harold: *People who Live in Glass Houses* (V.D.), 768
— J. L.: Early treatment of Bell's palsy, 556
— M. E. Morgan: Penicillin and synthetic rubber, 508, 741—Anticoagulant *p*H in E.S.R. estimations, 782
— William, obituary notice of, 409
THOMPSON, Brian C.: Air embolism, 403
— R. B.: A case of rat-bite fever, 388
Thomson, W/Capt. Alexander Prentice, death of, 101
— G. S.: Chloroform anaesthesia, 144
— Capt. William, death of, 826
THOREK, Max: *Surgical Errors and Safeguards*, 4th ed., 16
Thornton, H. L.: Wide-bore endotracheal connexions, 534; correction, 592
Threadworms: Maturing of, 676—Methylene blue for, 713
Throat infections, haemolytic streptococcal: their complications and sequels, with special reference to penicillin treatment (P. Robinson), 213 (O)
Thrombo-embolism (leading article), 50
Thrombosis: Arterial, after ectopic pregnancy (Robert Newton), 438—Iron and, 634
Thyroid and sex function (annotation), 772
Thyrotoxicosis, thiouracil in treatment of (A. Grainger and others), 343 (O)
TIDY, Sir Henry: Sweating sickness and Picardy sweat, 63—*Ascaris lumbricoides*, 107—Renal injury, 662
— (and E. B. MORLEY): Glandular fever and infectious mononucleosis, 896
TILLING, Alfred: Longevity, 950
TINEL, J.: *Conception et Traitement des Etats Neurasthéniques*, 322
Tin-miners, medical examination of, 710
Tinnitus, relief of, 144
TIPPETT, G. O.: Sciatic "neuritis", 441
— Sydney Gordon: National research into tuberculosis, 942
TISDALL, O. R.: A support for anaesthetic tubing, 924
Tobacco smoking, effect of, on health, 98, 233, 342, 900
Todd, David F., obituary notice of, 788
— E. W. (and others): "Fastness" of staphylococci, haemolytic streptococci, and pneumococci to penicillin, 603 (O)
TOMASZEWSKI, W.: *A Short Anglo-Polish Medical Dictionary*, 498
TOMB, J. Walker: Acquisition of language by infants, 204
TOMPSETT, Sidney Lionel (and Alexander BROWN): Poisoning due to mobilization of lead from the skeleton by leukaemic hyperplasia of bone marrow, 764 (O)
TOMS, Anne M.: Means for keeping up the population, 369—Breast-feeding to time-table, 744
Tonics: The case of a "cocktail tonic" (medico-legal), 931
Tonsillitis, acute haemolytic streptococcal, treated with penicillin, 213
Tonsils: Removing buried tonsils, 34—Fishbone embedded in tonsil, simulating neoplasm, 592
TOPLEY, Elizabeth (and others): Trial of whooping-cough vaccine in city and residential nursery groups: report to the M.R.C., 205 (O); leading article, 222; correspondence, 334
TOPPING, A.: Public health services in U.S.A., 25—European health problems: the work of U.N.R.R.A., 892
TORRENS, Dudley F.: "Reasons" for scientific research, 706
TORRIE, Alfred: The return of Odysseus: the problem of marital infidelity for the repatriate, 192
Tough, Frederick William, obituary notice of, 671
Tourniquet, 413
TOVEY, Geoffrey H. (and M. O. SKELTON): Relation between congenital obliteration of bile ducts and icterus gravis neonatorum, 914 (O)
TOWNSEND, Eric: Humanitarianism and the European situation, 446
Tracheotomy, mediastinal emphysema and bilateral pneumothorax after (J. R. M. Whigham), 47; correspondence, 475
Transfusion, an aid to (W. D. Linsell), 692
— blood: Hypersensitivity to transfused blood (Sheila Callender and others), 83 (O)
TRAQUAIR, H. M.: Removal of the wrong eye, 300
Trauma: As a cause of disease (book reviews), 220, 356—Technique in (book review), 849
Treatment: Telling the patient, 513, 581
TREMELLEN, Sybil: Effects of tobacco smoking on health, 233
Tresawna, W. S., obituary notice of, 370
Trichiniasis, a sporadic case of (A. K. Ng Chhung Hin), 219
Trichomonas vaginalis infection in the male (F. L. Lydon), 384 (O)
Trinidad: Committee on Local Medical Services, report of, 32
TRONCHIN-JAMES, N. (and B. E. FINCH): Hysteria mimicking meningism, 532
Troup, Arthur George, obituary notice of, 102
— James Macdonald, obituary notice of, 587
TROWELL, H. C.: *Diagnosis and Treatment of Diseases in the Tropics*, 2nd ed., 849
Trumpp, Joseph, death of, 409
Tryparsamide for G.P.I., 374; correction, 414
Tuberculin testing in children: a comparison of methods (Doyne Bell and Ursula Jerram), 215 (O)

TUBERCULOSIS:
After-care, notes of book on, 731
Allowances for year to March 31, 1945, 32
Apical, early, pneumoperitoneum for, 793
Bacillus, survival of, 34
Calcium in, 871
Children. *See* Children
Climate, 142
Council, Joint Tuberculosis: Special meeting, 399
Diabetes and, 909
Erythema nodosum and tuberculosis (William D. Gray), 286 (O)
Ex-Service men: treatment costs, 338
Food for tuberculous persons, 631
Hygiene in sanatoria, 272
Immunity after B.C.G. vaccination, 272

TUBERCULOSIS (*continued*):
Lancashire looks back on tuberculosis (annotation), 260
Mass radiography. *See* Radiography
Management and treatment, 308
Milk: Tea-making and tuberculous milk, 514—For the tuberculous, 868
Northern Ireland, central scheme for, 363
Nursing: *Aids to Tuberculosis for Nurses* (book notes), 390—Young nurses in tuberculosis wards, 628—Shortage of nurses, 737
Pathogenesis (annotation), 537; correspondence, 665
Pneumothorax, artificial: An improved needle (Alastair Allan), 607; correspondence, 742, 783, 821, 862, 899
Preston Hall Convalescent Home: Appointment of honorary consultants, 83
P.O.W.s in Germany, tuberculosis among (A. L. Cochrane), 656 (O)
Prisons, tuberculous persons in, 32; correspondence, 100, 242, 301, 546
Pulmonary: A freakish occurrence (Norman C. Lake), 287—Acute surgical emergencies and, 299, 364—Chronic, 476—In the adult (book review), 849
Radiography: Mass unit surveys in Lancashire, 60
Re-employment of the consumptive, 134
Renal, 948
Research, national, 781, 901, 942
Sanatorium treatment: For Service men and women, 239—Accommodation in sanatoria, 589
Scotland, beds in, 828
U.S.A. (book review), 768
Vaccines, autogenous, 831
Varrier-Jones Memorial Lecture, 658, 777
Wales: Death rate, 484—Tuberculosis in (annotation), 811
War and peace, tuberculosis in (Charles Cameron), 619
X-ray survey at San Quentin Penitentiary, U.S.A., 411

Tucker, Lieut.-Col. Ernest Frederick Gordon, obituary notice of, 788
Tumour: Salivary-gland, of upper lip (J. F. Curr), 605, 872—Very large granulosa-cell, of ovary (H. A. Kelsey), 922
TURNBULL, Jane H.: Maternity and child welfare, 59
— W. R.: End-to-end anastomosis in small intestine, 405
TURNER, G. Grey: Tribute to Thomas Beattie, 67—The "stamping" of the Guards, 707
— G. S. (and others): "Fastness" of staphylococci, haemolytic streptococci, and pneumococci to penicillin, 603 (O)
— H. M. Stanley: Treatment of duodenal ulcer, 544
— R. G.: Human creeping myiasis; report of a case, 11 (O); correspondence, 135
— William Aldren, obituary notice of, 200
TURTON, E. C.: Administration of penicillin by intramuscular infusion, 283 (O); correspondence, 400
— (and John L. D'SILVA): Case of achalasia of cardia, 461
TWINING, H. E. (and others): 41 cases of Vincent's angina treated by penicillin, 718
Twins: Foetal erythroblastosis and hydrops in (Eileen Malone), 496—A coincidence (dextrocardia), 548, 705
Typhoid bacillus: Osteomyelitis of skull due to *Salmonella typhi* (J. M. Lever and G. B. Barker), 459 (O)
Tyrrell, Edgar James, obituary notice of, 68

U

Uganda: Hospital and Medical School to be established, 507

ULCERS:
Duodenal: Ambulatory treatment of, in a factory, 298, 400, 473, 544—Pituitary snuff and, 400—Infant feeding and, 585, 702
Gastric and duodenal, in infancy and childhood, 10 cases of (E. J. Donovan and T. V. Santulle), 181
— and femoral thrombosis, 72
Multiple, of legs, due to infestation with body lice (G. E. Morris), 649
Paratyphoid, of rectum (G. Gordon Lennon), 496
Peptic: Treatment of, 308—Histidine and, 340—Caffeine and (annotation), 504; correspondence, 627—Neutralizing gastric HCl, 556—Vagotomy for (annotation), 611—Discussion by Paddington Division of B.M.A., 739
Tropical, initial treatment of (Francis E. Stock), 388
Ulceration, chronic undermining: Case treated with penicillin (Aubrey Leacock), 765 (O); correspondence, 864
Varicose, 482—Treatment of, 816, 899, 937

Ulnar nerve, pain in, 449
Ultra-violet-light apparatus, therapeutic efficiency of: comparison of tests (B. C. Elliott), 881 (O); annotation, 890
Undulant fever. *See* Fever
UNGAR, J.: A question of nationality, 832

United States of America: Local Health Service (Society of M.Os.H.), 25—American medical practice (book review), 157—Alvarenga Prize (College of Physicians of Philadelphia), 247—English qualifications in, 484—Tuberculosis in (book review), 768—Van Meter Prize for work on goitre, 829—Sale of Government publications in London, 950
University of Birmingham: Degrees conferred, 69—Scholarships and prizes awarded, 69

UNIVERSITY OF CAMBRIDGE:
Appointments, 552, 906
Degrees conferred, 139, 338, 629, 709, 827
Financial Board: Report, 827
Horton-Smith Prize awarded, 709
Pass lists, 31, 946
Regius Professor of Physic: Appointment, 327, 371
Scholarships, 139, 169

University of Dublin: Degrees conferred, 69, 870—Appointments, 749
—— of Durham: Honorary degrees conferred, 103, 169—Degrees conferred, 169—Appointment, 201
—— of Edinburgh: Degrees and diplomas conferred, 31, 103, 946—Polish School: degrees conferred, 103—Prizes, medals, and scholarships presented, 103—Appointments, 409, 789—Inaugural Lecture of Professor of Tuberculosis, 619—Keith lectures on discovery and early history of investigation of *x* rays, 736
—— of Glasgow: Degrees conferred, 31, 103—Harry Stewart Hutchison Prize, 31—Appointments, 236—Lord Rectorship, 269, 673
—— of Leeds: Memorial to Sir William Bragg, 239—Pass lists, 480—Medical degree ceremony: grants for development of facilities for teaching, 518
—— of Liverpool: Pass lists, 69—Appointments, 480
—— of London: Readership in Bacteriology, 139—Degrees conferred, 139—Scholarships, exhibitions, and prizes at U.C.H., 169—Pass lists, 201, 338, 749, 946—Appointments, 236, 480, 672, 789, 827, 870—Chair of tropical medicine, 827—Institute of Child Health, 827—Recognized teachers, 827—Examinations, 827—Nuffield Chair of Child Health (annotation), 855
—— of Manchester: Pass lists, 103—Appointments, 201, 946—Wood Jones Foundation Lecture, 946
—— of Oxford: Degrees conferred, 31, 169, 338, 629—Oster Memorial Medal, 31—Theodore Williams Scholarship, 748
—— Queen's, Belfast: Pass lists, 69
—— of St. Andrews: Degrees conferred, 31—Pass lists, 69, 169
—— of Sheffield: Resignations, 139—Pass lists, 480—Appointments, 709
—— of Wales: Pass lists, 201, 672
U.N.R.R.A.: *Medical Manual*, 807
UNWIN, H. R.: Unusual cause of intestinal obstruction in a newborn baby, 414
URBACH, Erich (and P. M. GOTTLIEB): *Allergy*, 321
Urethritis, "non-specific", 713
Urinary bilharziasis (R.S.M.), 60
Urine: Alkaline tide, 241
Urology, female (book review), 730
Urticaria: Vitamin K in (annotation), 224—And fresh-water bathing, 307—Exertion urticaria, 753
USMAR, G. R.: Drug treatment of cancer, 414
U.S.S.R.: Leningrad surgeons (Nikolai Blinov), 88—Medicine in, 669—*Microbiology and Epidemiology* (book notes), 807—Medical science in, 814
Uterus. *See* Gynaecology

V

Vaccination: And death certificates, 32—Compulsory, 673—Methods of, 712—Immediate reaction to revaccination, 871—Number of public vaccinations, 945
Vaccine, whooping-cough, trial of, in city and residential nursery groups: report to the M.R.C. (A. M. McFarlan and others), 205 (O); leading article, 222; correspondence, 334
Vaccines, egg-prepared, allergy to (R. G. Park), 570
Valdervehr, Paul H., death of, 788
VALENTINE, W. H.: The "stamping" of the Guards, 942
Varicella and herpes zoster, 74, 714
Varicose ulcers. *See* Ulcers
—— veins: In the elderly, 413—The operation for, 510, 627, 816—Order of injecting, 519—Haematuria following injection, 668, 864
Vascular collapse with anuria, 373
VAUGHAN, Janet: Debility following blood donations, 740
—— Kathleen: Women in labour, 443
Venepuncture, methods of, 27

VENEREAL DISEASES:
Gonorrhoea: *Gonorrhoet* (book notes), 49—Continued frequency after, 105
Management and treatment, 308
Marriage and, 411
Neurosyphilis, control of, 870
Penicillin. *See* Penicillin
Prevention, review of book on, 15

VENEREAL DISEASES (*continued*):
Prophylaxis, 28
Syphilis: Case of third-generation syphilis (C. J. V. Helliwell), 186; correspondence, 585—Syphilology and dermatology (year book), 219; Neisser on syphilology (book review), 463—False positive tests for syphilis and malaria (annotation), 327—Haemolytic disease and congenital syphilis in siblings: the role of the Rh factor (Marjory N. McFarlane), 494 (O)—History of, 658—Treatment of early syphilis, 900—Treatment, 908—Cure of, 949
Venereology, 414, 556, 634, 754—Future of, 902

Veraguth, Otto, death of, 409
Village, the decaying (leading article on *Country Planning*), 358
VILVANDRE, G.: Colostomy, 230
Vincent's angina treated with penicillin (B. M. Schwartz, P. L. Shallenberger, and others), 382
VINE, J.: Alien doctors, 549
VINEY, Hester: *Medical and Nursing Vocabulary in English and Greek*, 390
VINTER, F. Jean (and John ELAM): Food for Europe, 865
Viper antivenenes, 172
—— bite: Four cases of Russell's viper bite (P. H. Wyon), 919 (O)
Virus diseases (book review), 220
—— infections, penicillin and, 483
Vision. *See* Ophthalmology

VITAMINS:
Ariboflavinosis, ocular signs of (annotation), 889
Avitaminosis and arcus senilis, 824
B: In general therapy, 555—In dried yeast, 675
Biotin, annotation on, 655
C: And the gums (leading article), 18—Role in wound healing, 97—High-colour-index anaemia due to vitamin C deficiency (B. Gottlieb), 119 (O)—Value of supplements in preventing lactational mastitis (A. A. Fulton), 488 (O); correspondence, 744
D: Mode of action (annotation), 432; correspondence, 545
Dosage: Concentrated, 374—Large, 484
Folic acid (annotation), 91; correction, 272
K: In urticaria (annotation), 224—Value of, 340

Vivisection: Experiments in 1943, 32
Volvulus of small intestine, case of (R. Salisbury Woods), 496; correspondence, 626, 704, 786, 863
Vomiting, post-operative, in relation to anaesthetic time (J. Morland Smith), 217 (O)
Von Noorden, Carl, death of, 409

W

WAGNER, Gertrude (and E. R. BRANSBY): Diets of school-children in two industrial towns, 682 (O)
WAKELEY: Cecil P. G.: *Hey Groves' Synopsis of Surgery*, 12th ed., 731—Surgical catgut, 784
—— (and G. E. BREEN): The discovery of *x* rays, 747
WAKSMAN, Selman A.: *Microbial Antagonisms and Antibiotic Substances*, 885
Wales, tuberculosis in (annotation), 811
Walker, Arthur, obituary notice of, 370
—— C. W.: Notes on adder-bite (England and Wales), 13 (O); correspondence, 172, 242
—— H. M.: Liver extracts, 714
—— J. H. Milnes: Excision of patella, 543
—— Lindsay H.: Fluorine in toothpaste, 144
WALLER, W. E.: Treatment of varicose ulcers, 938
WALLON, Henri: *L'Évolution Psychologique de l'Enfant*, 355
WALSH, R. Crosbie: Treatment of varicose ulcers, 938
WALSHE, F. M. R.: *Diseases of the Nervous System Described for Practitioners and Students*, 4th ed., 121—On "acroparaesthesia" and so-called "neuritis" of hands and arms in women: their probable relation to brachial plexus pressure by normal first ribs, 596 (O); correspondence, 701, 746, 820
—— (and C. P. SYMONDS): Neurologist and neurosurgeon, 364
WALTER, W. Grey: Electro-convulsive therapy apparatus, 66
WALTON, Sir James: Aetiology of gall-stones (Presidential address to the Medical Society of London), 593 (O); correspondence, 700
WALZER, R.: *Galen on Medical Experience*. First edition of the Arabic version, with English translation and notes, 288

WAR:
Abdomen, doubtful penetrating wound of, 74
Blast injury, a case of (B. B. Hickey), 218
B.L.A. Medicine (Ernest Bulmer), 873 (O)
Casualties: Evacuation by air, 130—Empire and U.K. statistics, 868
Chest, penetrating wounds of: Indications for surgery in: the importance of pulmonary injury (G. Qvist), 521 (O)
Dermatitis from wearing Army spectacles (W. O. G. Taylor and others), 40 (O)
Detention barracks: Stakehill, 868
East Africa Command, doctors in, 868

WAR (*continued*):
Effort syndrome in West African soldiers, 134
Far East, invaliding from, 589
From war to peace (leading article), 221
Germany, health of British forces in, 828
Medical practice, organization of, in wartime (leading article), 17; tribute from Minister of Health, 22
Medicine: Inter-Allied Conferences on, 88—Lessons of wartime experience, 891
Mine explosion, injury from, 106
Naval warfare, problems of, under climatic extremes: Croonian Lectures (Macdonald Critchley), I, 145 (O); II, 173 (O); III, 208 (O); correspondence, 334, 404, 896
Neuroses, "predisposition" to, 28
Prisoners of war: Trench fever as a cause of pyrexia in, 27—Some experiences of a medical P.O.W. (B. Markowski), 361 (O); correspondence, 513—Diminution of vision in repatriated, 400—Tuberculosis in Germany (A. L. Cochrane), 656 (O)—Neurosis among repatriated (W. H. Whiles), 697 (O)—Repatriation: a psychiatric study of 100 naval ex-P.O.W.s (W. P. Mallinson and W. Warren), 798 (O)—Latent disease in Far East P.O.W.s, 822
Psychiatry: Wartime work in psychiatric clinics (annotation), 467—In the Army, 508 (corrected, 556), 582, 624—War and social psychiatry (book review), 571—Psychiatric lessons from active service (G. W. B. James), 620
Seasickness, prevention of, in assault craft: report of experiments under tropical conditions (Ian G. W. Hill and A. I. Guest), 6 (O)
Sulphonamide rashes: analysis of 500 cases seen in N. Africa and Italy (G. A. Grant Peterkin), 1 (O)
Surgery: B.L.A. surgery (A. E. Porritt and others), 377 (O); correspondence, 476
Typhus, scrub: As a war disease (Sir John W. D. Megaw), 109 (O)—A clinical study (M. C. Menon and Colin Ibbotson), 112 (O)
Wounds: Further reduction in hospital infection of wounds (Valentine Logue and Wylie McKissock), 415 (O)

WARD, A. G.: *Colloids: Their Properties and Applications*, 498
—— Ernest, obituary notice of, 479
—— F. G.: "Orthopaedic" rehabilitation, 225
—— Philip M.: Artificial pneumothorax refill, 862
—— R. L. (and A. S. MASON): Polyneuritis after jungle sores: A series of 21 cases, 252 (O)
—— R. Ogier: Surgical aspects of urinary bilharziasis, 60—Medical future of the Colonies, 781—Hormone therapy for cancer, 935
WARNE, L. A. F. (and others): Epidemic diarrhoea and vomiting, 627
WARREN, W. (and W. P. MALLINSON): Repatriation—a psychiatric study of 100 naval ex-P.O.W.s, 798 (O)
Warts: Plantar, treatment by injection, 143—Multiple, 271—Podophyllin for, 592, 910—Treatment of, 950
WASHINGTON, Miss: Hospital dietitians, 858
Water, "sterile," an out-patient and surgery technique (Alex Comfort), 187—Purifying supplies, 793
WATERLOW, J.: Vitamin C in wound healing, 96
Waters, taking the (annotation), 259; correspondence, 369
Watkins, Harold Ernest, obituary notice of, 409
WATSON-JONES, Sir Reginald: Excision of patella, 195—Congenital dislocation of hip, 738
WATSON-SMITH, S.: Weights and measures, 302
WATTIE, Nora: Unity of maternity and child welfare services, 59
WAY, Stanley: Relation between gastric acidity and the anterior-pituitary-like hormone content of urine in pregnant women, 182 (O)
WEATHERHEAD, E.: Air embolism, 333—Acute inversion of uterus, 783
Webb, Sir Arthur Lisle Ambrose, obituary notice of, 629
—— John: Doctors and the social trend, 303
—— Lowell: Taking the waters, 369—Corn in Egypt, 950
WEBB-JOHNSON, Sir Alfred (and Lord MORAN): Medical books for Holland, 740
WEBBER, Brian: Volvulus of small intestine, 863
WEBER, F. Parkes: Acroparaesthesia, 701
WEBSTER, J. H. Douglas: *X* rays and prostatic hypertrophy, 241
WEDDERBURN, C. C.: Third-generation syphilis, 58
Weight: Reduction by dieting, 136, 231, 300, 547, 668—Increasing weight, 591
Weights and measures, 302
WELSH, Fauset: Surgical catgut, 743
WENYON, C. M.: Tropical medicine in war and peace, 774 (O); correction, 832; correspondence, 895
Werdnig-Hoffman disease, inheritance of, 949
WEST, J. H.: Ludwig's angina, 369
West Africa, Impressions of surgery in (J. K. Willson-Pepper), 812 (O); correspondence, 93
WHEELOCK, M. C. (and others): Mumps and mumps orchitis, 767
WHIGHAM, J. R. M.: Mediastinal emphysema and bilateral pneumothorax after tracheotomy, 47; correspondence, 475
WHILES, W. H.: A study of neurosis among repatriated P.O.W.s, 697 (O)
White, Major John, died at a P.O.W. camp in Malaya, 672

White, Joseph, obituary notice of, 337
White Paper (Health Service): Negotiations with the medical profession, 269—Socialist Government and Health Service proposals, 305. *See also* National Health Service
WHITTET, T. D.: Sterilizing paraldehyde, 143
WHITTINGTON, R. B. (and others): Significance of E.S.R., 741
WHITTY, C. W. M.: Sciatic "neuritis", 582
Whitwell, late James Richard: Bequests for mental patients, 70
WHITWORTH, J. L.: Artificial respiration, 272
Whooping-cough: Prophylaxis, 131—Trial of whooping-cough vaccine in city and residential nursery groups: report to M.R.C. (A. M. McFarlan and others), 205 (O); leading article, 222; correspondence, 334—Whoop after vaccine, 449—Pertussis immunization (C. P. Stevick), 931
WICKES, Ian G.: Treatment of severe paronychia, 299
Wieden, Mildred S. R., assistant of John A. Degen, jun., *q.v.*
Wigram, Edmund H. L., obituary notice of, 944
WILES, Ronald B.: The shackled mind, 439
WILKIE, C. Hamilton: Treatment of early syphilis: a warning, 900
WILKINS, E. H.: Premedical zoology, 404—Housing, health, and unwise spending, 585
WILKINSON, John F.: Pernicious anaemia and cancer, 664
WILLAN, R. J.: Excision of patella, 166
WILLIAMS, Bryan: Standardization of instrument fittings and apparatus, 166
— Cicely D.: Welfare work a branch of medicine, 786
— G. C.: Application of the new Education Act, 193
— Leslie H. (and Aleck W. BOURNE): *Recent Advances in Obstetrics and Gynaecology*, 6th ed., 533
— Raymond: Artificial pneumothorax refills, 900
WILLIAMSON, Bruce: *A Handbook on Diseases of Children*, 4th ed., 187
— H.: Why "hyperbaric" and "hypobaric"? 368
WILLINK, Henry: Tribute to organization of medical practice in wartime, 22
WILLSON-PEPPER, J. K.: Impressions of surgery in W. Africa, 812 (O); correspondence, 937
WILSON, A. Kirk: Medical views on nurses' training, 513
— Clifford: The ischaemic kidney, 661—Acute yellow atrophy after trilene anaesthesia, 784
— C. W.: *Radium Therapy: Its Physical Aspects*, 767
Wilson, James Thomas, obituary notice of, 370
— J. Greenwood: Post-war housing, 193
— J. M. G.: Bitterness, 477
— O. (and T. D. CULBERT): Chronic regional ileitis, 332
— T. Stacey: Acupuncture, 144
WINDLE, R. W.: March fracture, 232
WINGFIELD, Alec: Palindromic rheumatism, 157
WINNICOTT, D. W.: *Getting to Know Your Baby*, 121—Physical therapy in mental disorders, 901
WINNING, John: Weight reduction by dieting, 231
WINTER, Arthur G.: The proposed National Health Service, 936
WISEMAN, D. C.: Domiciliary midwifery and the family doctor, 402
WISHART, G. M. (and others): *Practical Physiological Chemistry for Medical Students*, 3rd ed., 692
WITKIN, M.: Newer concepts of breast-feeding, 97, 267
WITTS, L. J. (and Sylvia M. LIVINGSTONE): Effects of choline, 664
WODEHOUSE, Roger P.: *Hayfever Plants*, 49
Wolfe graft. *See* Ophthalmology
Wood, Arthur Murray, obituary notice of, 337
— Capt. David Frew, killed, 335
— Eric C.: Physiology and psychology of craving, 107
— John, obituary notice of, 551
— K. B. (and G. C. COCHRANE): Syphilitic reinfection after penicillin therapy, 333
— Mary A.: Descent of testis, 860
— R. C. (and K. C. DIXON): Tick-borne relapsing fever in Cyprus, 526 (O)
Woodburn, William Young, obituary notice of, 788
WOODS, R. Salisbury: Case of volvulus of small intestine, 496; correspondence, 626, 704, 786, 863
WOOLF, B.: Infant mortality and social conditions, 477
— L. Stuart: Day nurseries, 198, 335
Worms in cod, 519
Worthington, Robert Alfred, obituary notice of, 268
Wound healing, nutritional factors affecting, 95
Wounds, gaping, adhesive corset dressing for (M. Lichtenstein), 158
WRIGHT, A. Dickson: Colostomy, 230—Hormone therapy for cancer, 935
— Margaret: Vitamin K, 59
— Samson: *Applied Physiology*, 8th ed., 923
WYANT, G. M.: Acute yellow atrophy after trilene anaesthesia, 820
WYATT, S. (and assistants): *A Study of Women on War Work in Four Factories*, 325
WYLIE, B.: Unusual complication of a wasp sting, 450
Wynter, W. Essex, bequests, 815
WYON, P. H.: Four cases of Russell's viper bite, 919 (O)

X

X rays: And prostatic hypertrophy, 105, 241—Protection of workers, 203—Discovery of (leading article), 608; correspondence, 747—Commemorative meetings at R.S.M., 699, 736—Examination of alimentary tract (book review), 730—Stethoscope *versus x* rays (R.S.M. debate), 856; correspondence, 941

Y

YACOB, Khan Bahadur M. (and Satya SWAROOP): Longevity and old age in the Punjab, 433 (O); correspondence, 545, 624
YATES, John: Resuscitation after drowning, 144—Acid-fast organisms in gastric resisting juice, 530 (O); correspondence, 702
Yelf, Robert Edward Burnet, obituary notice of, 551
Young, Ernest Eric, obituary notice of, 707
— James H.: Sciatic neuritis, 701
YUDKIN, S. (and others): Food consumption of working-class and lower-middle-class families in Brussels during January, 1945, 351 (O)
Yugoslavia, medical relief in (annotation), 696

Z

ZACHARY, R. B.: Nerve injuries in children, 545
ZANGWILL, O. L.: Review of psychological work at the Brain Injuries Unit, Edinburgh, 1941-5, 248 (O)
ZELMAN, S.: Blood diastase values in 89 cases of mumps, 425
ZIMMERMANN, H. M. (and others): Record of a case of Kaposi's disease involving thyroid gland and brain, 265
ZINNEMAN, K. (and M. GORDON): The *in vitro* sensitivity of *H. influenzae* to penicillin, with special reference to meningeal strains of Pittman's type b, 795 (O)
Zoology, premedical (M. Abercrombie and M. L. Johnson), 262 (O)

LIST OF ILLUSTRATIONS

PAGE

Adder Bite (England and Wales), Note on (C. W. Walker) (O) 13
Altitude, High, Effects of, on Man (B. H. C. Matthews) (O) 75
Anaesthetic Tubing, a Support for (O. R. Tisdall) 924
Anastomosis, End-to-end, a Method of, in the Small Intestine (J. Seton Pringle) 256
Appendicitis, Left-sided, a Case of (J. W. L. Haddon) (O) 569
Ball, Sir William Girling 138
Bankart's Operation: A Technique of Drilling the Glenoid in Bankart's Operation for Recurrent Dislocation of Shoulder (P. B. Moroney) .. 122
Beattie, Professor Thomas 67
Bed-sores, Apparatus for Treating (J. F. Neil) 390
Bell's Palsy, Early Treatment of (H. P. and C. M. Pickerill) (O) 457
Buzzard, Sir Edward Farquhar 943
Cell Counts, a Source of Error in the Determination of (Bernard Freedman) 605
Cerebral Cortex, Some New Developments in the Morphophysiology of (S. Sarkisov) (O) 37
Chest, Indications for Surgery in Penetrating Wounds of: the Importance of Pulmonary Injury (G. Qvist) (O) 521
Combined Harness and Tubing Support (Harvey Nichol) 651
Congenital Discoid Internal Cartilage (F. C. Dwyer and C. Taylor) .. 287
Corset Dressing, Adhesive, for Gaping Wounds (M. Lichtenstein) 158
Diarrhoea and Vomiting, Epidemic: An Outbreak in a General Hospital and Surrounding District (George Brown and others) (O) 524
Dislocation, Congenital Recurrent, of Head of Radius (Ellis Bindman) .. 354
Embolectomy, Peripheral Arterial (Philip Hopkins) (O) 117
Embolism, Cerebral Fat, after Electrical Convulsion Therapy (A. Meyer and Donald Teare) (O) 42
Endotracheal Connexions, Wide-bore (H. L. Thornton) 534
Fibroma, Large, arising from the Pulmonary Pleura of the Right Lower Lobe (A. W. Fawcett) 425
Finger-tips, Sore, in Industry: Protection by Hydrogen Peroxide (J. Vincent Bates) (O) 154
Foreign Bodies in the Bronchi and Oesophagus in Children (B. M. L. Abercromby) (O) 647
Fractures: Apparatus to Elevate a Fracture Case for Application of Plaster (J. Noel-Jackson) 16
—— Internal Malleolus (G. M. Muller) (O) 320
—— Management of Recent Fracture-dislocations of the Cervical Spine (A. N. Guthkelch) (O) 880
—— Survey of Fracture Treatment (C. Max Page) (O) 835
—— Two Unusual Stress Fractures (Ian D. Kitchin and David A. Richmond) (O) 214
Galvanic Stimulation, Influence of, on Muscle Atrophy resulting from Denervation (E. C. S. Jackson and H. J. Seddon) (O) 485
Gastric Acidity, Relation between, and the Anterior-pituitary-like Hormone Content of Urine in Pregnant Women (Stanley Way) (O) .. 182
Gillespie, Robert Dick 670
Hepatitis, Infective, Liver Function in, gauged by Hippuric Acid Synthesis Tests (M. R. Pollock) (O) 878
—— —— Mixed Cases of: Evidence of Liver Damage without Symptoms among a Community at Risk (M. R. Pollock) (O) 598
—— —— Neurological Complications of (J. F. Stokes and others) (O) .. 642
Infant Suffocation, Accidental (W. H. Davison) (O) 251
Insulin, Globin: Clinical Trial (J. M. Malins) 318
Intestinal Obstruction, Acute, due to Dried Fruit (G. C. Dorling) .. 426
Jaundice Therapy of Rheumatoid Arthritis (Frances Gardner and others) (O) 677
Labyrinthine Fistula Symptom, an Unusual Case of (J. Lee) (O) 47
Laurie, Alan R. 101
Longevity and Old Age in the Punjab (M. Yacob and Satya Swaroop) (O) 433

PAGE

Meningitis due to a Penicillin- and Sulphonamide-sensitive Pittman b Strain of *H. influenzae*: Recovery (D. G. McIntosh and Constance F. Drysdale) (O) 796
Micro-organisms, the Use of, for Therapeutic Purposes (Sir Howard W. Florey) 635
Microscope, Electron (John H. Jupe) (O) 500
—— Projection, for Use in Daylight (T. S. Davies) 428
Nearthrosis of the Shaft of the Humerus for Amputations round the Elbow-joint (Leon Gillis) (O) 686
Night-blindness: A Trick to Detect "Malingerers" (E. Epstein and S. A. Hugh Lesser) (O) 644
Nutrition in Vienna in September, 1945 (Magnus Pyke) (O) 839
Omentum, Torsion of (M. N. Khanna) 729
Otitis Externa (J. F. Birrell) (O) 80
Penicillin: A Systemic Penicillin Apparatus (F. Ronald Edwards) 86
—— Administration by Intramuscular Drip (T. A. Grimson) 849
—— —— —— Infusion (E. C. Turton) (O) 283
—— —— Indwelling Syringe for (H. F. Barnard) 498
—— —— Simple Apparatus for (A. J. P. Graham) 768
—— "Fastness" of Staphylococci, Haemolytic Streptococci, and Pneumococci to (E. W. Todd and others) (O) 603
—— Reaction to (H. Jaslowitz) 767
Pentothal, Continuous, Simple Apparatus for (H. Marcus Bird) 289
Perspex in Orthopaedics (John T. Scales and Woolf Herschell) (O) .. 423
Plasma Proteins, Methods for Determining (R. P. Cook and others) (O) 456
Pneumothorax, Artificial: An Improved Needle (Alastair Allan) 607
Porphyria, Acute Idiopathic (G. Discombe and John L. D'Silva) (O) .. 491
Premature Babies, Heated Carrier for Transporting (J. N. O'Reilly) .. 731
Rat-bite Fever, a Case of (R. B. Thompson) 388
—— —— due to Cat-bite: Satisfactory Response to Penicillin after Failure of Arsenotherapy (G. I. M. Swyer) (O) 386
Russell's Viper Bite, Four Cases of (P. H. Wyon) (O) 919
Salivary-gland Tumour of the Upper Lip (J. F. Curr) 605
Schistosomiasis, Cutaneous, involving *S. haematobium* Eggs (K. O. Black) (O) 453
Sculling for One-armed Man (Percy Tatchell) 144
Sherren, James 670
Skull: Treatment of Denuded External Table (Patrick Clarkson and J. Schorstein) (O) 422
Spectroscope, Cheap Home-made (B. J. Freedman) 356
"Sterile" Water: An Out-patient and Surgery Technique (Alex Comfort) 187
Stresses, Mechanical, Effects of, on Man (B. H. C. Matthews) (O) .. 114
Syndrome, resembling Addison's Disease, with Severe Anaemia, Steatorrhoea, and Melanuria (S. Locket) (O) 417
Thiouracil in the Treatment of Thyrotoxicosis (A. Grainger and others) (O) 343
Thomas Splint: A Simplified Method of Application (Lipmann Kessel) .. 463
Tick Typhus, a Case of, in the Sudan (R. B. Usher Somers) 848
Tick-borne Relapsing Fever in Cyprus (R. C. Wood and K. C. Dixon) (O) 526
Transfusion, an Aid to (W. D. Linsell) 692
Typhoid Fever complicated by Benign Tertian Malaria (A. S. Bookless and J. M. Naftalin) (O) 804
Typhus: Four Cases in Britain (H. L. Whitchurch Beach and John K. Rennie) (O) 153
Ulceration, Chronic Undermining, treated with Penicillin (Aubrey Leacock) (O) 765
Uterus, Acute Inversion of (J. V. O'Sullivan) (O) 282
Valve Disk for Circle Absorbers (J. Clutton-Brock) 572
Vesico-vaginal Fistula, Irreparable, in Iraq: Treatment by Ureterocolostomy (Donald M. Douglas) (O) 78
Wilson, Professor James Thomas 370
Wolfe Graft, Device for Fixation of (I. C. Michaelson) 49

KEY TO DATES AND PAGES

The following table, giving a key to the dates of issue and the page numbers of the BRITISH MEDICAL JOURNAL and SUPPLEMENT in the second volume for 1945, may prove convenient to readers in search of a reference.

Serial No.	Date of Issue	Journal Pages	Supplement Pages
4409	July 7	1– 36	1– 4
4410	„ 14	37– 74	5– 8
4411	„ 21	75–108	9– 14
4412	„ 28	109–144	15– 20
4413	Aug. 4	145–172	21– 38
4414	„ 11	173–204	39– 44
4415	„ 18	205–242	45– 48
4416	„ 25	243–272	49– 52
4417	Sept. 1	273–308	53– 58
4418	„ 8	309–342	59– 62
4419	„ 15	343–376	63– 68
4420	„ 22	377–414	69– 72
4421	„ 29	415–450	73– 76
4422	Oct. 6	451–484	77– 80
4423	„ 13	485–520	81– 86
4424	„ 20	521–556	87– 92
4425	„ 27	557–592	93– 96
4426	Nov. 3	593–634	97–100
4427	„ 10	635–676	101–104
4428	„ 17	677–714	105–110
4429	„ 24	715–754	111–118
4430	Dec. 1	755–794	119–124
4431	„ 8	795–832	125–128
4432	„ 15	833–872	129–132
4433	„ 22	873–910	133–136
4434	„ 29	911–950	137–140

Published at the Office of the British Medical Association, Tavistock Square, W.C.1, and Printed by Fisher, Knight and Co., Ltd., Gainsborough Press, St. Albans.

Only 2 put in York. V. 43.

HAYDOCK LODGE
NEWTON-LE-WILLOWS, LANCASHIRE

Tel.: Wootton, Ashton-in-Makerfield.
'Phone: Ashton-in-Makerfield 7311.

For the reception and treatment of PRIVATE PATIENTS of both sexes suffering from mental and nervous disorders, alcoholism, and drug addiction, either voluntarily, temporarily, or under Certificate. Patients are classified in separate buildings according to their mental condition.

Situated in park and grounds of 400 acres. Self-supported by its own farm and gardens, in which patients are encouraged to occupy themselves. Every facility for indoor and outdoor recreation. For terms, prospectus, etc., apply Medical Superintendent.

THE RETREAT, YORK

The Pioneer Hospital, opened 1796, for the humane treatment of those suffering from Nervous and Mental Disorder.

This Hospital of 200 beds, administered by a Committee of the Society of Friends, combines what is best in the investigation and treatment of nervous illness with a sympathetic and friendly atmosphere. Last year 233 patients were admitted, of whom 184 were voluntary cases. Much curative work is accomplished in our mental hospitals to-day, and the recovery rate compares very favourably with that of our general hospitals.

For information and terms of admission apply to: the Physician Superintendent, ARTHUR POOL, M.R.C.P., (Tel. York 3612.)

BEECHMONT HOUSE
HAYWARD'S HEATH, SUSSEX

For LADIES suffering from NERVOUS and MENTAL ILLNESS. Controlled by Brighton Mental Hospital Authorities. In pleasant woodland, entirely secluded, and with beautiful views of the Sussex Weald and Downs. Grounds and Gardens of 12 acres. Voluntary, Temporary, and Certified patients accepted. Fees from 3½ to 10 guineas per week. Apply Medical Supt. Tel.; Haywards Heath 897.

THE OLD MANOR, SALISBURY
Telephone 3216 and 3217.

A Private Hospital for the Care and Treatment of those of both sexes suffering from MENTAL DISORDERS. Extensive grounds. Detached villas. Chapel. Garden produce from own gardens Terms moderate.

Convalescent Home at Bournemouth

standing in 12 acres of ornamental grounds with separate villas, tennis courts, etc. Patients or Boarders may visit the Home by arrangement. Illustrated Brochure on application to the Medical Superintendent, The Old Manor, Salisbury.

COURT HALL, KENTON, near EXETER
FOR THE TREATMENT OF EIGHT LADIES, VOLUNTARY, TEMPORARY and CERTIFIED PATIENTS

CLIFFDEN, TEIGNMOUTH

FOR EARLY AND CONVALESCENT CASES. Recreational Therapies are held daily by skilled Leaders. The house stands high with spacious balconies and extensive views of the South Devon coast. Beautiful garden. Own Dairy in 25 acres Private road to beach. There is also a charming house, EBWORTHY, MANATON, DARTMOOR, situated in 20 acres, 1,100 ft. up for bracing moorland air. Resident Physicians, Bertha A. Mules, M.D., B.S.; Anne S. Mules, M.R.C.S., L.R.C.P. Telephones: Starcross 259 and Teignmouth 289.

PECKHAM HOUSE
112, PECKHAM ROAD, LONDON, S.E.15

Telegrams: "Alleviated, London."
Telephone: RODNEY 2641-2642.

A private Mental Hospital for Ladies and Gentlemen suffering from Nervous and Mental Illness, where the amenities of a comfortable home are combined with full investigation and every well-established modern treatment. TERMS FROM 4 GUINEAS WEEKLY. Illustrated Prospectus may be obtained from the PHYSICIAN-SUPERINTENDENT.

WYE HOUSE, BUXTON

A private Hospital for the treatment and care of Nervous and Mental Disorders in both sexes. Voluntary, Temporary, and Certified patients received. Apply to Dr. Iain Macphail. Tel.: Buxton 130.

RUTHIN CASTLE, NORTH WALES

A Private Clinic, the first in Great Britain, for investigation and treatment of all forms of disease, except mental and infectious. Nursing, Dietetic, Massage, X-ray, and Laboratory Departments. Central heating and a lift to all floors.

Inclusive Charges. Apply Secretary. Tel.: Ruthin 66

DUCHY HOUSE CLINIC, HARROGATE

Private Hospital for investigating obscure illnesses, well equipped for the investigation and treatment of rheumatic affections, diabetes, and diseases of the blood and alimentary tract. The services of a full consulting staff available; fees inclusive for investigation. For brochure apply Secretary.

Tel.: Harrogate 3872.

CHEADLE ROYAL, CHEADLE, CHESHIRE

A registered Hospital for MENTAL DISEASES, and its Seaside Branch, GLAN-Y-DON, Colwyn Bay N. Wales. The object of this Hospital is to provide the most efficient means for the treatment and care of Patients of both Sexes suffering from MENTAL and NERVOUS DISEASES. The Hospital is governed by a Committee appointed by the Trustees of the Manchester Royal Infirmary. VOLUNTARY, TEMPORARY, AND CERTIFIED PATIENTS RECEIVED. For terms and further information apply to the Medical Superintendent. Telephone: Gatley 2231.

THE COPPICE, NOTTINGHAM
Hospital for Mental Diseases

This Institution is exclusively for the reception of a limited number of Private Patients of both sexes at moderate rates of payment. It is beautifully situated in its own grounds on an eminence a short distance from Nottingham, and from its singularly healthy position and comfortable arrangements affords every facility for the relief and cure of those mentally afflicted. Occupational Therapy. Voluntary and Temporary Patients received. Tel: 64117.

For terms, etc., apply to the Medical Superintendent.

CAMBERWELL HOUSE
33, PECKHAM ROAD, LONDON, S.E.5.

Telephone: RODNEY 4242 (2 lines).

For the Treatment of Mental Disorders

Full particulars may be obtained from the Secretary

THE CONVALESCENT BRANCH IS HOVE VILLA, BRIGHTON, and is 200 ft. above sea-level.

SHAFTESBURY HOUSE,
FORMBY-BY-THE-SEA, near LIVERPOOL

Specially built and licensed for the care and treatment of a limited number of ladies and gentlemen suffering from Nervous and Mental breakdown. Voluntary and certified patients received. Ladies also admitted as Temporary Patients without Certification. Terms moderate.

Apply Resident Physician, who may also be seen at 31, Rodney Street, Liverpool, by appointment. Tel.: No. 8 Formby.

WONFORD HOUSE, EXETER, DEVON

A Registered Hospital for the Treatment of MENTAL DISORDERS OF THE EDUCATED CLASSES. Cases under certificate, voluntary and temporary patients received for treatment. Convalescent Home: Newlands, Dawlish, where patients can be sent by arrangement for long or short periods. It provides all the comforts of a well-appointed home. For terms apply to the Medical Superintendent, Wonford House, Exeter.

THE GRANGE, near ROTHERHAM

For Ladies suffering from Nervous and Mental Disorders. Certified, voluntary, and temporary patients received. Country house, beautiful grounds. Five miles from Sheffield. Res. Phys.: GILBERT E. MOULD, L.R.C.P., M.R.C.S. Ecclesfield 38330.

ROYAL EARLSWOOD INSTITUTION

Redhill, Surrey, for MENTAL DEFECTIVES of all ages. Training under medical supervision. Schools. Farm. Trade. Workshops. Recreation. Fees £125 to £375 p.a. Election by votes of subscribers at reduced terms for necessitous trainable cases. Apply SECRETARY. Tel.: Redhill 344.

STRETTON HOUSE
CHURCH STRETTON, SHROPSHIRE
Telephone: CHURCH STRETTON, 10.

A PRIVATE HOME for Gentlemen suffering from any form of Mental Disorder. Voluntary, temporary and certified patients received. Terms on application to the Resident Medical Superintendent.

CITY OF LONDON MENTAL HOSPITAL
DARTFORD, KENT

Ladies and Gentlemen received for treatment under certificates and without certification as either VOLUNTARY or TEMPORARY PATIENTS at a weekly fee of £2 9s 0d. and upwards.

CHISWICK HOUSE, PINNER, MIDDLESEX
Telephone: PINNER 234.

A Private Hospital for the Treatment and Care of Mental and Nervous Illnesses in both sexes. A modern country house, 12 miles from Marble Arch, in attractive and secluded grounds. Fees from 10 guineas per week inclusive. Cases under Certificate. Voluntary and Temporary patients received for treatment. DOUGLAS MACAULAY, M.D., D.P.M.

THE MAGHULL HOMES FOR EPILEPTICS
(INC.) MAGHULL, near LIVERPOOL

For brochure, apply the Secretary, 29, Exchange Street East, Liverpool. Full details are in our advertisement which appeared on December 15.

ECCLESFIELD, STAPLEHURST, KENT

HOME for the care and cure of ALCOHOLIC cases (ladies). Fine mansion. 100 acres. Successful treatment. Catholic chapel on estate. For terms, apply to Sister Superior, Staplehurst 26111.

ST. ANDREW'S HOSPITAL, NORTHAMPTON
For Nervous and Mental Disorders.

President: THE MOST HON. THE MARQUESS OF EXETER, K.G., C.M.G., A.D.C. *Medical Supt.:* THOMAS TENNENT, M.D., F.R.C.P., D.P.H., D.P.M. This Registered Hospital is situated in 130 acres of park and pleasure grounds. Voluntary patients who are suffering from incipient mental disorders or who wish to prevent recurrent attacks of mental trouble, temporary patients and certified patients of both sexes are received for treatment. Careful clinical, biochemical, bacteriological and pathological examination. Private rooms with special nurses, male or female, in Hospital or in one of the numerous villas in grounds of the various branches can be provided.

WANTAGE HOUSE.—This is a Reception Hospital in detached grounds with a separate entrance to which patients can be admitted. It is equipped with all the apparatus for the complete investigation and treatment of Mental and Nervous Disorders by the most modern methods; insulin treatment is available for suitable cases. It contains special departments for hydrotherapy by various methods, including Turkish and Russian baths, the prolonged immersion bath, Vichy Douche, Scotch Douche, Electrical baths, Plombières treatment, etc. There is an Operating Theatre, a Dental Surgery, an *X*-ray Room, an Ultra-Violet Apparatus, and a Department for Diathermy and High-frequency Treatment. It also contains Laboratories for biochemical bacteriological, and pathological research. Psychotherapeutic treatment is employed when indicated.

MOULTON PARK — Two miles from the main Hospital there are several branch establishments and villas situated in a park and farm of 650 acres. Milk, meat, fruit, and vegetables are supplied to the Hospital from the farm, gardens, and orchards of Moulton Park. Occupational therapy is a feature of this branch, and patients are given every facility for occupying themselves in farming, gardening, and fruit-growing.

BRYN-Y-NEUADD HALL—The seaside house of St. Andrew's Hospital is beautifully situated in a park of 330 acres at Llanfairfechan, amidst the finest scenery in North Wales. On the North-West side of the Estate, a mile of sea-coast forms the boundary. Patients may visit this branch for a short seaside change or for longer periods. The Hospital has its own private bathing house on the seashore. There is trout-fishing in the park.

At all the branches of the Hospital there are cricket grounds, football and hockey grounds, lawn tennis courts (grass and hard courts), croquet grounds, golf courses, and bowling greens. Ladies and gentlemen have their own garden, and facilities are provided for handicrafts such as carpentry, etc.

For terms and further particulars apply to the MEDICAL SUPERINTENDENT (Telephone Nos. 2356 and 2357 Northampton), who can be seen in London by appointment.

CRICHTON ROYAL, DUMFRIES
For Nervous and Mental Disorders

Cases of alcoholism and drug addiction are admitted. Special department for insulin therapy. Terms moderate. Medical certificates given anywhere in the British Isles are valid for admission of patients. Physician-Supt. P. K. McCowan J.P., M.D., F.R.C.P., D.P.M., Barrister-at-Law. Telephone: Dumfries 1119.

HEIGHAM HALL, NORWICH

PRIVATE MENTAL HOME for Nervous and Mental Illness. All types of treatment available. Fees from 4 gns. per week upwards, according to requirements. Vacancies occasionally exist at reduced fees on the recommendation of the patient's own physician. Apply to Dr. J. A. SMALL.

Telephone: Norwich 20080.

LAVERSTOCK HOUSE, nr. SALISBURY, WILTS

Private Mental Home for Certified and Uncertified Ladies and Gentlemen. Lovely house and garden (18 acres). ESTABLISHED 200 YEARS. MODERN TREATMENTS. Illustrated brochure may be obtained from Dr. HORACE HILL, M.R.C.P., Physician-Superintendent. Tel: Salisbury 2612.

PENDYFFRYN HALL SANATORIUM
All Modern Methods of Treatment available

Ideally situated for the treatment of Tuberculosis. Shelter from E. and N.E. winds. Climate mild and bracing. Low rainfall, high average of sunshine. The Sanatorium is situated in its own Park. There are miles of graduated walks through pines, gorse, and heather, rising to 800 ft. and commanding extensive sea and mountain views. Central heating, electric light, *X*-ray installation. Wireless in all rooms. Full day and night nursing staff. Special milk supply from a tuberculin tested herd. Easily accessible from London, Manchester, Liverpool, Birmingham and the North.

Medical Superintendent: DENNISON PICKERING, M.D. Apply Secretary, Pendyffryn Hall, near Penmaenmawr, North Wales. 'Phone 20.

THE COTSWOLD SANATORIUM

On the Cotswold Hills 7 miles from Cheltenham, Gloucester, and Stroud. Equipped for treatment of all forms of TUBERCULOSIS. Terms 6 to 10 guineas per week. Particulars from Secretary, Cotswold Sanatorium, Cranham, Gloucester. 'Phone: Witcombe 2181. 'Grams: Hoffman, Birdlip.

For *sustained* control of gastric hyperacidity

NOVASORB

(Hydrated Magnesium Trisilicate)

Novasorb provides for sustained control over gastric hyperacidity without producing an alkaline condition in the stomach. It thus presents a desirable improvement over the older antacids, where control is limited to the immediate reaction and where continued administration of excess alkali may induce alkalosis.

High adsorptive properties
Will not give rise to alkalosis
With suitable doses, does not destroy peptic activity
A safe antacid for general use

The Novasorb brand of hydrated magnesium trisilicate was developed and introduced by Evans Fine Chemical Works and is based on the original observations and clinical trials of Mutch (Brit. med. J. 1936, I, 143, 205 and 254).

Issued in Powder and Tablet form

For prices and further particulars apply to:
Liverpool: Home Medical Department, Speke, Liverpool, 19
London: Home Medical Department, Bartholomew Close, E.C.1

MEDICAL EVANS PRODUCTS

Made in England by

EVANS MEDICAL SUPPLIES LTD.

A notable advance in NASAL MEDICATION

Powerful synthetic vasoconstrictor, 2-(naphthyl-1-methyl)-imidazoline hydrochloride, producing decongestion of the nasal mucous membrane.

Prompt and prolonged relief for 2-6 hours.
Absence of irritation and side effects.
Assured isotonicity and corrective physiological reaction.
Economical and effective medication.

NASAL CONGESTION
RHINITIS
RHINO-SINUSITIS

PRIVINE

REGISTERED TRADE MARK

1:1000 Full Strength Solution. For adults.

1:2000 Half Strength Solution. For children and, in certain cases, for adults.

Bottles of ½ fl. oz. with dropper.
Bottles of 4 fl. ozs.

Literature and samples on request.

Ciba LIMITED

THE LABORATORIES • HORSHAM • SUSSEX

Telephone: HORSHAM 1234 Telegrams: CIBALABS, HORSHAM

From single-cell selection to large-scale production

D.C.L. VITAMIN B, YEAST

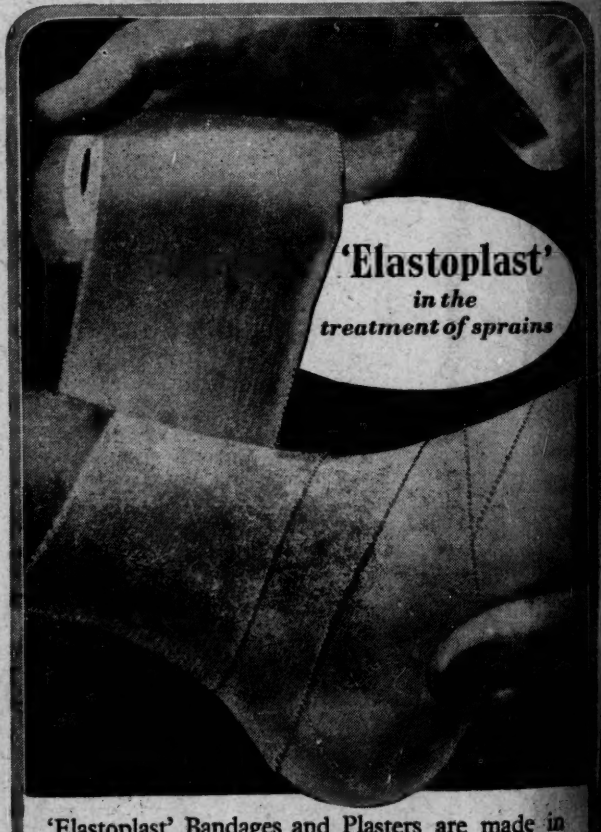
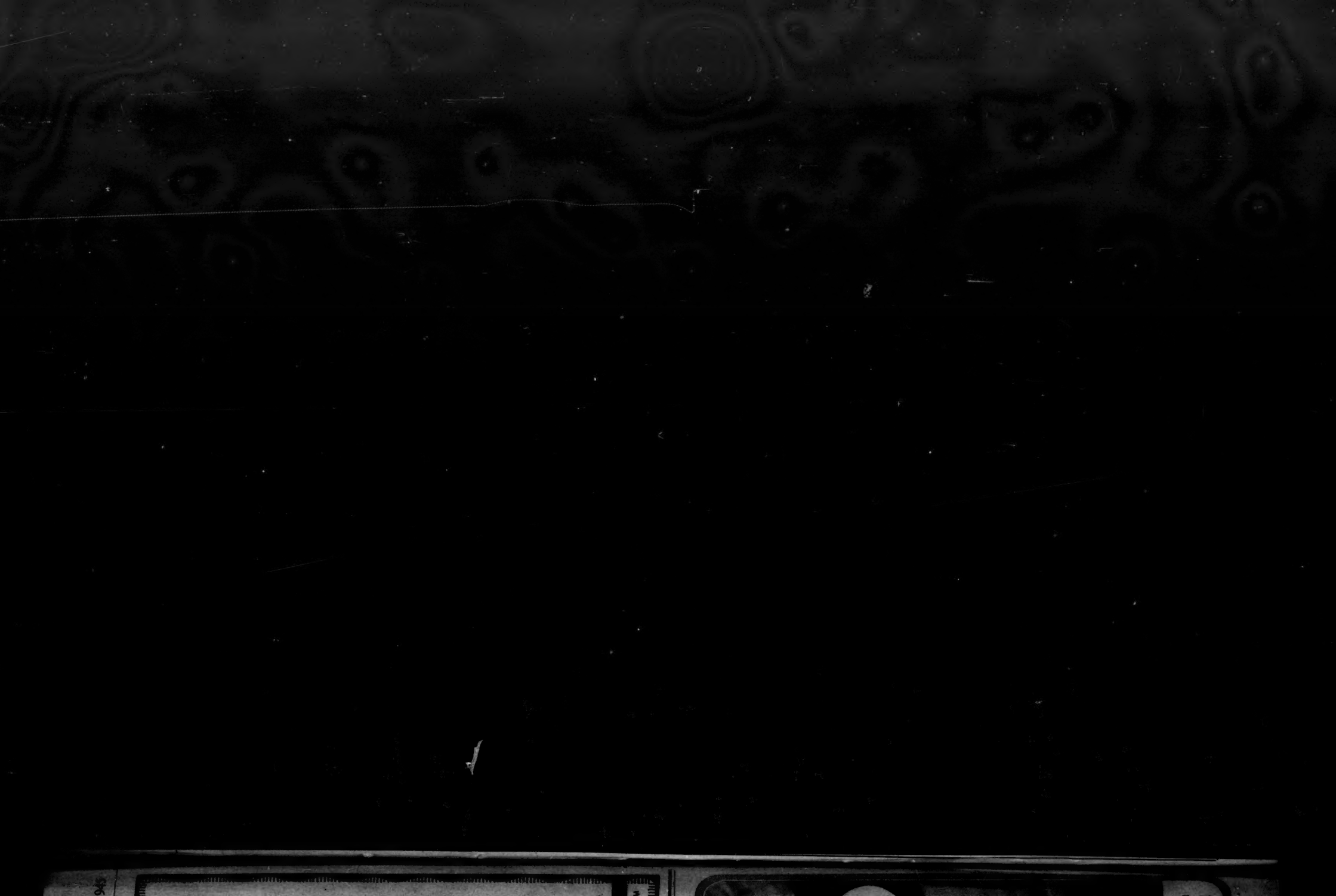
is subjected to the strictest biological and chemical control. This special yeast contains approximately:

Vitamin B_1	300 International Units per gram. (900 micrograms)
Riboflavin	50 micrograms per gram.
Nicotinic Acid	250-350 micrograms per gram.
Vitamin B_6 (Pyridoxin)	25-50 micrograms per gram.

(3 D.C.L. Tablets equal 1 gram).

Supplies are meantime limited, but every endeavour will be made to meet requests from members of the Medical profession.

THE DISTILLERS COMPANY LTD., EDINBURGH



'Elastoplast' Bandages and Plasters are made in England by T. J. Smith and Nephew, Ltd., Hull